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AIR CONDITIONING & REFRIGERATION NEWS

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ALL-INDUSTRY SHOW TOPS ALL RECORDS

Supply, Rather than Price, Seen as Big '41 'If'

Dept. Store Men Admit Sales Will Soar—If Product Supply Lasts

NEW YORK CITY—Speakers at the major appliance session of the National Retail Dry Goods Association convention here last week were frank in stating that they believe the current year will be one of the most successful in the history of the business. They also admitted that the trade-in evil, highlighted at last year's convention, is still a major problem, and that the discount house competition is something that is a long way from being solved.

Arthur Hirose, director of research of the McCall Corp., talking on "Trends in Household Appliances," said that during 1941 price will not be the sole buying factor with the public. "We may even come to the stage," he stated, "when the prospect asks not 'How cheap can I get it?' but 'Can I get it?'"

Mr. Hirose also cautioned the industry to watch its step during the nearby years, declaring that it must get its house in order to take care of the period following the war.

"Retailers," he said, "and especially department stores, will do well to watch trends in commitments, inventories, local market research, the question of fewer appliance lines, private brands, close-outs and specials, number of models and sizes carried, prices, terms, sales people and selling methods, and advertising."

In opening the major appliances session, Philip Du Boff of Bloomingdale Brothers, New York, again stressed the threats of trade-ins and the discount houses, and asserted that the industry must battle against these evils. He also stated that the discount houses are making daily gains, and that trade-ins are a more acute problem than ever before.

Unlike previous sessions this year's was directed to store owners, with stress laid upon the competition that they are facing.

H. U. Mann of the Electric Vacuum Cleaner Co. discussing "Appliance Selling a Specialty Selling," actually had the audience in the aisles.

Mr. Mann typed selling as active and passive, with the emphasis on the active. A cigar store salesman, he said, is a typical example of passive selling.

"You put your 16 cents on the counter and the clerk hands over the cigarettes. But, in selling appliances, you have to use your head. You have to sell ideas as well as merchandise. You have to sell not only what the merchandise is, but what it can do."

John Bogen of the American Gas Association made the point that all sales are price sales.

"You can buy a Gillette razor for 49 cents," he asserted, "but there are plenty of sales made on electric razors at $12.50 and up. We have lost sight of the fact that cost and price are not the same thing. We must take off our blinders because there is more than price in all of the appliances we sell."

In his talk on 1941 appliance trends, Mr. Hirose had praise for the fewer models brought out by most manufacturers, but asserted that the low prices were working against, rather than for, the industry's general good.

(Concluded on Page 16, Column 1)

Leads Service Men

E. A. PLESSKOTT

* * *

Plesskott Elected RSES President

By T. T. Quinn

CHICAGO—E. A. Plesskott, St. Louis, was elected president of the Refrigeration Service Engineers Society for the 1941 term, at the seventh annual convention of the service mens' organization, held in the Stevens hotel last week in conjunction with the Third Annual All-Industry Exhibition. Formerly first vice president of R.S.E.S., Mr. Plesskott succeeds Gordon A. Burns, Toronto, Canada, who headed the organization during 1940.

Clarence Bushkopf, Beaver Dam, Wis., was elected first vice president of the organization, and A. W. Gruber, Irontown, Ohio, was named second vice president. S. A. Leitner, Kansas City, and H. T. McDermott, Chicago, were reelected to the offices of treasurer and secretary, respectively.

Elected directors of the R.S.E.S. for the coming year were J. L. Driskell, Burley, Ida.; M. G. Ogden,

(Concluded on Page 4, Column 4)

Engineers, Salesmen Seen As 'Teammates' Working For Users

CHICAGO — Refrigeration engineering and refrigeration selling can work together most effectively only if both technical men and salesmen "see through the eyes of the user." This was the big point brought out at the First National Conference on Refrigeration Selling, held Jan. 14 in the Stevens hotel under sponsorship of American Society of Refrigerating Engineers.

Interdependence of the research, technical, and merchandising branches of the refrigeration industry was stressed by both speakers and discussion leaders at the session, who pointed out that, unlike a chameleon's eyes, engineering and selling effort must move in the same direction if they are to best serve the interests of that all-important individual—the user.

With coordination of effort, speakers agreed, the salesman can prove a valuable and prolific source of development ideas for the research and technical departments, while in his turn the technical man translates the best of these ideas into a sounder, simpler product.

A complete report on the conference, which it is anticipated will develop into a regular "added feature" of A.S.R.E. activities, will appear in next week's NEWS.

Jobbers Adopt Plan To Study Business Costs

Additional Projects Are Considered at Annual N.R.S.J.A. Meeting

By Phil B. Redeker

CHICAGO—An aggressive program of projects to benefit materially its membership was outlined by the National Refrigeration Supply Jobbers Association at its annual convention at the Stevens hotel last week.

Most important of the projects will be a very thorough "cost analysis"—a survey of the average cost of doing business by the various classes of jobbers. Results of this survey will be available only to cooperating members.

With 10 new applications for membership received during the convention period and with a very favorable financial condition indicated in the report of the association's finances, the N.R.S.J.A. has indicated that it will press home such other activities as:

(1) Further effort by the jobbers to generalize the 2% cash discount from manufacturers, and a compilation of the cash discount practices of all manufacturers.

(2) Survey of jobber coverage or "density," to show how well refrigeration supplies wholesaling firms now cover various trading areas in the United States.

(3) Planning a lighter, easier-to-use all-inclusive dealers salesman's catalog.

(4) Interchange of credit information among jobbers by regions.

(5) More aggressive promotion efforts to sell the jobber and his function to the trade. Commending the "It's Good Business to Buy From the Jobber" envelope stuffer used last year, the members indicated they would like to see an even more aggressive promotion effort.

In making a report on the association's membership, Fred B. Hovey, executive secretary, told the jobbers:

"The last membership list printed prior to June 1, 1940 listed 96 firms as members of the association. Since June 1, 1940, members have been strongly urged to pay their dues in accordance with the by-laws and those who have not made a payment on their dues for the association's fiscal year ending Oct. 31, 1940 have been dropped from membership.

"Since June 1, 1940, 13 firms previously listed as members have been dropped from membership, either because they claimed to have previously tendered their resignation or because they had not paid their dues according to the by-laws. Since then four firms have become members of the association and the association's membership list, printed in the fall of 1940, lists 87 members in good standing.

"The firms now listed have all

(Concluded on Page 13, Column 1)

Kelvinator Gets U.S. Order For 25,000 Refrigerators

DETROIT—Orders totaling 25,000 electric refrigerators for the United States defense housing projects have been received by the Kelvinator division of Nash-Kelvinator Corp.

(Concluded on Page 4, Column 2)

N.A.C.A. to Admit Engineers; Page Again President

By Henry Knowlton

CHICAGO—Jesse W. Page, Jr., of Page-Williamson, Inc., Charlotte, N. C., was elected to succeed himself as president of the National Air Conditioning Association for the year 1941 at the association's second annual convention here last week. Other officers, also reelected for the coming year, are: J. N. Sprekelmeyer, of General Engineering Corp., Fort Worth, Tex., vice president; and A. C. Buensod, of Buensod-Stacey, Inc., New York City, treasurer.

Meetings of the association were held in connection with the Third All-Industry Refrigeration and Air Conditioning Exhibition.

Directors of the association, elected for terms of three years each, are: J. W. Bostwick, manager, air conditioning division, Fairbanks, Morse & Co.; H. C. LeVine, president, Atmospheric Control Corp., Detroit; and Mr. Sprekelmeyer, who will continue as a director following the expiration of a one year term in 1940.

To facilitate progress of the association in the industry, the newly elected board of directors appointed an executive committee from the directorate. Under this arrangement, management details pertaining to the association will be in the hands of E. R. Cooney, of Cooney Refrigeration Co., Buffalo; M. S. Lebair, of York Ice Machinery Corp., Philadelphia; Mr. Page; and Mr. Buensod. Other directors of the group are S. J. Shure, of Natkin & Co., St. Louis; and Alfred Epstein, of Independent Refrigeration Co., Los Angeles.

According to Mr. Page, the association will publish the NACA

(Concluded on Page 15, Column 1)

Committee Formed To Set Locker Standards

By Jim McCallum

CHICAGO—Formation of a "Joint Industry Committee on Frozen Food Locker Plants" and of a three-man "steering committee" to organize and direct this group's activities constituted the principal accomplishment

(Concluded on Page 4, Column 1)

9,286 Visitors Jam Exhibits; Buying Is Brisk

1,303 Attend All-Industry Banquet; Plans For 1942 Show Started

CHICAGO—There were 9,286 persons who registered to see the Third All-Industry Refrigeration & Air Conditioning Exhibition, according to an unofficial tabulation of registration cards made by an Association of Commerce official, who will later give an official report to the Refrigeration Equipment Manufacturers Association.

Next year's All-Industry Exhibition will again be held at the Stevens hotel in Chicago, it was decided at a luncheon of exhibitors held on the final day of the show. Further details will probably not be announced until the spring Rema meeting.

The attendance represented a gain of 18% over last year's total, and everyone noted the improved caliber of those who came into the exhibition halls. Restriction of student attendance to "seniors" in refrigeration courses cut down the percentage of this group, and raised the percentage of other groups accordingly.

Group that probably showed the greatest increase, according to the first unofficial breakdown of attendance, with that comprising distributors of refrigeration and air conditioning equipment. Air conditioning dealers and contractors were out in stronger force than in previous years, and the number of design engineers who registered (over 300) was considered astounding.

A total of 197 exhibit spaces were occupied by 131 exhibitors at the Show.

Monday was the peak day for registrations, with more than 4,200 signing up. Wednesday, however, was the day which saw the biggest rush in the exhibition halls, 8,071 persons being clocked through the doors by closing time. Aisles and booths were so jammed on Wednesday night that visitors to the show experienced real difficulty in moving around.

It was announced that 1,303 guests attended the All-Industry Banquet,

(Concluded on Page 4, Column 3)

The Spirit of the All-Industry Show— Customer Tells Supplier

H. H. Hubbell, of Brass & Copper Sales, St. Louis jobber, and K. B. Thorndike, of Detroit Lubricator Co., talk over mutual problems in this between-sessions scene during last week's All-Industry Exhibition.

Selling 'Through the Dealer' Rather Than 'To the Dealer'

The Function of the Wholesale Salesman

H. M. Butzloff, author of this series of articles, is central sales manager for Norge. Before that he had many years of experience in the field distribution end of the household electric refrigeration business, with Westinghouse, and with the old Stover Co., original Frigidaire distributor in the Chicago area.

With the introduction of new lines of household refrigerators and other major appliances, the wholesale or distributor's salesman begins a new selling season. This series of articles, by a man well-known in appliance sales work, is aimed to give the wholesale salesman some pointers on how to do a better job.

By H. M. Butzloff

Know the Business Of the Dealers

2. Manpower

The problem of manpower means employing enough men to get the job done.

Many wholesale salesmen realize that a dealer has not enough men to get the job done—not enough men to sell the number of people to get the dealer's rightful share of the market. Yet what to do about it is the problem.

First determine just how many men are needed to do the job. Start with a minimum quota that you expect to attain, keeping in mind the fair share of the going business which your dealer should develop. Some dealers are so undermanned today that only a fraction of the potential in their territory is being reached. The addition of several salesmen will enable them to get a greater share of the market and increase their net profit.

It must be remembered in discussing this problem of manpower, that increased volume very materially affects net profits. It takes a certain amount of gross profit to take care of fixed expenses, and the gross profit beyond a certain point practically means net profit. It is, therefore, easy to see that increased volume attained by additional salesmen over and above the volume required to take care of fixed overhead will yield a correspondingly larger per cent of net profit.

In brief, increased manpower means

a. A greater percentage of the going business.

b. A bigger volume and better net profits.

HOW MANY SALESMEN?

To determine the number of salesmen necessary to employ to get the job done is the next step. For example, dealer "A" now employs four salesmen and in 1939 sold 220 refrigerators, or an average of 55 per man. But in 1940, to do his share of the estimated volume he should sell 350 refrigerators. Now, either one of two things must happen. The present salesmen must sell 73 refrigerators per man, or it will be necessary to employ three additional men:

Average number men employed during 1939	4
Refrigerators sold in 1939	220
Average number of refrigerators sold by each man	55
Estimated quota for 1940	350
Average number of refrigerators per man expectancy	55
Number of salesmen needed to sell 1940 estimate, based on expectancy per man	7
Additional men needed	3

In case of dealer "B," whose salesmen sell other items in addition to refrigerators, such as ranges, water heaters, and washing machines, a similar calculation can be made.

In 1939, dealer "B's" salesmen averaged 45 refrigerators, 20 ranges, 10 water heaters, 15 washing machines—a total of 90 units each.

Assume dealer "B" has sold in 1939 180 refrigerators, 80 ranges, 40 water heaters, 60 washing machines—a total of 360 units.

His quota for 1940 is 650 units:

Average number of salesmen employed during 1939	4
Units sold during 1939	360
Average number per man	90
Quota estimated for 1940	650
Based on average expectancy, men required	7 Plus
Additional men needed	3

In analyzing manpower requirements, it is well to keep in mind that an exclusive man can do a certain type job, and as soon as other lines are added, the expectancy of performance on each product must be scaled down. A man cannot be expected to maintain the volume he produced on an exclusive basis and still produce an added volume on other products he is attempting to sell.

Where the production per man is very low, and the retail salesman is not making enough to live on, every effort should be made to increase the average production per man before putting on additional men.

Whether the salesmen should be exclusive or handle several products, depends on the territory, the dealer, the seasonal trends, and many other factors which must be determined locally.

FINDING NEW SALESMEN

The dealer may agree he needs new salesmen, but where to find them has always been a problem. Here the creative, thoughtful wholesale salesmen has an advantage, because he points the way to where salesmen can be found.

Good salesmen can be recruited from practically every field of endeavor. A great deal depends upon the man himself. Still, in looking for salesmen, certain types of men have a better chance of succeeding than others. These are men experienced in selling or contacting the public, or men with a wide acquaintanceship, such as insurance, real estate, automobile, or vacuum cleaner salesmen, and retail clerks.

A dealer is oftentimes successful in securing salesmen through friends, club and fraternal organizations. However, the quickest and most effective way is through classified advertising in a local newspaper. Here again, the wholesale salesman can sell himself if he is able to help the dealer draw up the copy to get good men. So out of his bag of tricks comes a suggestion for a newspaper advertisement.

Classified newspaper advertisements for new salesmen are usually written in one of two ways: to attract a specific type of man or men; or to attract good potential salesmen generally. Example:

SPECIFIC TYPE

WANTED!

Polish speaking salesman
Real opportunity for "go-getter," selling Blank Refrigerators and other major home appliances. Specialty selling experience preferred but not necessary. Salary and commission, paid weekly. Apply after 9 a.m. Tuesday, BLANK'S ELECTRIC SHOP, Main & Second Sts.

WANTED!

Two "A-1" Appliance Salesmen . . . for steady, year around employment. Must be experienced, consistent producers, of good character and reputation. Opportunity to average $50 to $65 a week. Phone Mr. Smith for appointment. Appliance Dept.

J. B. HUDSON & CO.

Note that in the "specific" type of advertisement, the complete message is terse, hard-hitting, and openly signed by the dealer.

GENERAL TYPE

GROWING BUSINESS NEEDS MEN
Active buying on part of public forces us to expand our selling organization. Excellent opportunity for right men, to sell Blank Refrigerators and other major home appliances. Clean, dignified work. Present men now earning $30 to $50 weekly, in salary and commissions. Previous selling experience preferred but not necessary. Apply in person to Mr. Smith, Parlor B, Statler hotel, 9 a.m. Monday.

S A L E S M E N
Immediate opening for 3 high class, dependable men with cars, to sell Blank Refrigerators and other major home appliances. Liberal salary and commission arrangement. Good chance for advancement in growing organization. See Mr. Smith, Parlor B, Statler hotel, 9 a.m. Monday.

In the "general" type advertisement, a more complete story is told and a "semi-blind" signature is usually used. These advertisements are designed to attract men from other fields and businesses; if not from "inside" jobs, then from other selling activities.

Always take a good look at the market and in writing your advertisements appeal to the class of salesmen wanted. If you have a large foreign born population, surely it follows that this class can best be contacted by one of their own nationality, who knows their habits. If the market is large enough, it pays dividends to get coverage of markets that can be had only by a specialized person who can speak their language.

Who's Who Where

Three Men Advanced By Bryant Heater

CLEVELAND — Appointment of C. F. Cushing as sales promotion manager, D. E. Leslie as advertising manager, and H. W. Heisterkamp as manager of the air conditioning sales department has been announced by the Bryant Heater Co., here.

Mr. Cushing has been closely associated with the development of silica gel dehumidification systems, having been connected with the Davison Chemical Co. Before joining the Bryant organization in 1935 he was associated with Frigidaire Corp.

Mr. Leslie has been in the Bryant organization since 1935, after doing graduate work in engineering at the University of Minnesota.

Mr. Heisterkamp, since 1933, has been associated with the marketing of silica gel dehumidification systems.

Freeman Heads Chicago Electric Association

CHICAGO—Gaylord A. Freeman, vice president in charge of sales for Commonwealth Edison Co., has been elected president of the Electric Association of Chicago, the first utility man to head the organization since 1931.

J. Norman Pierce, Pierce Electric Co., was elected treasurer, and A. A. Gray was re-elected secretary. J. C. Schmidtbauer, Westinghouse Electric Supply Co., was named to the board of directors for a two-year term, to represent wholesalers. Sam Rosenthal, Hyland Electrical Supply Co., also is on the board for the 1941 term.

New directors elected to represent manufacturers are G. A. Hughes, Edison General Electric Appliance Co.; and Fred T. Whiting, Westinghouse Electric & Mfg. Co. Other directors of this group who will serve during 1941 are W. O. Batchelder, General Electric Co., and C. J. Maloney, Cutler-Hammer, Inc.

New Orleans Electrical Group Picks Riddick

NEW ORLEANS—A. G. Riddick, manager of the appliance division of C. T. Patterson & Co., Inc., has been elected president of the Electrical Association of New Orleans for the coming year. A. J. McCall, local manager for Graybar Electric Co., was named executive vice president.

Other vice presidents named for 1941 were: P. H. Lehde, Electron Engineering Co., wholesalers' division; W. B. Meek, Monroe Hardware Co., refrigeration division; Edward Phillips, electrical contractors' division; R. A. Mackenroth, Hunter Fan & Motor Co., air conditioning and ventilating division.

Willis Stafford Joins Detroit Lubricator

CHICAGO—Willis Stafford, who formerly operated his own refrigeration service dealership in Aurora, Ill., has joined the Chicago office staff of Detroit Lubricator Co. as a field engineer. He supplants T. C. (Bud) McKee, Jr., who is now a district salesman for the company, covering western Illinois, Wisconsin, and parts of Iowa.

A leader in the activities of Refrigeration Service Engineers Society, Mr. Stafford is well known to service men throughout the country. He is at present a director of the national R.S.E.S. organization, and an officer of the Illinois Association of Refrigeration Service Engineers.

Neale Represents Anemostat In Richmond Territory

RICHMOND, Va.—W. W. Neale has been appointed field representative for Anemostat in the central and western part of Virginia. Lawrence Trant & Co., with headquarters at Norfolk, will handle sales and engineering for Anemostat in the Norfolk district.

Cline Named President of Texas Service Group

DALLAS, Tex.—H. W. Cline has been elected president of the Lone Star chapter of Refrigeration Service Engineers Society. Other officers are:

Jack Langston, vice president; J. M. Bibb, second vice president; M. D. James, secretary; Miss Elizabeth Bibb, treasurer; H. N. Biebel, sergeant-at-arms. Gilbert L. Tausch and G. W. Mark were elected directors.

Refrigeration Man Named To Labor Union Council

PITTSBURGH — Joseph O'Toole, of the air conditioning and refrigeration division of the Plumbers' Union, was elected vice president of the Department Store Council of American Federation of Labor Unions, a newly formed permanent joint council comprising leaders of 17 AFL crafts.

Bodine Handles Western Sales For Westinghouse

SALT LAKE CITY—Frank E. Bodine has been named manager of sales for Westinghouse Electric & Mfg. Co. in this territory, reports Charles A. Dostal, Pacific Coast district manager. Mr. Bodine has been with Westinghouse in this area since 1928.

Dallas Deepfreeze Outlet

DALLAS, Tex.—Dallas Air Conditioning Co., Inc. has been appointed distributor here for the Deepfreeze frozen food storage unit for the home.

M. L. Brown is vice president of this firm.

New Service Firm

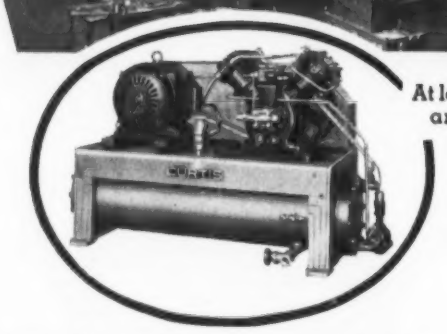
BUFFALO—Niagara Refrigeration Service has recently been organized here by Woodrow W. Frier. It is located at 1868 Niagara St.

Why Curtis is the Extra Value Line

CURTIS Uses the Most Modern Machining Equipment

This photograph shows one of the four bays in the Curtis machine shop, with some of the modern automatic machine tool equipment used for machining operations on Curtis refrigerating and air conditioning compressors. Automatic machines for interchangeability, accuracy and precision are characteristic of Curtis manufacturing methods.

Curtis refrigeration equipment is completely designed and built in the Curtis twenty-acre plant; every process is under the control of Curtis engineers. The result is that Curtis is able to give you extra value. You'll find it in the high efficiency, long life and trouble-free performance of every Curtis condensing unit.



At left—The Curtis 15 H.P. Shell and Tube Condensing Unit.

CURTIS REFRIGERATION AIR CONDITIONING AND COMMERCIAL

"Builders of Condensing Units Since 1922"

CURTIS REFRIGERATING MACHINE CO., 1912 Kienlen Ave., St. Louis, Mo.
Division of Curtis Manufacturing Company

CUSTOMERS Want it...
DEALERS Wanted!

The market for "packaged" air conditioning is almost unlimited. But no sale is better than the unit *you sell!* It will pay you to investigate the GR-Lipman line. We have a liberal sales franchise . . . and equipment that is unexcelled. Write for details.

Lipman GR AIR CONDITIONING

GENERAL REFRIGERATION DIVISION
Yates-American Machine Co.
Dept. AC-2 Beloit, Wisconsin

Westinghouse Labels 1941 Appliances To Give Shopper Facts

MANSFIELD, Ohio—An informative labeling program designed "to provide consumers with the information they want to know about electrical appliances" has been inaugurated by Westinghouse Electric & Mfg. Co. on its 1941 lines of refrigerators, ranges, and other major appliances.

"This informative labeling program is based on our conviction that the consumer wants to have—and is entitled to have—the complete facts about a product before making a purchase," Frank R. Kohnstamm, sales manager, said.

"We believe that by affixing to a product a label which is truly informative and gives the beneath-the-surface details, a shopper is best provided with a basis for intelligent appraisal and comparison."

The new informative labels, which will be placed on all products at the factory, will give the following facts about each piece of equipment: what it is made of, how it is made, and how it should perform. Labels will be affixed so that they cannot be removed unless a seal is broken.

The "what it is made of" section of the refrigerator label, for example, lists complete specifications such as food storage capacity, shelf area, ice capacity, types of finishes used, dimensions, and a description of the accessories included with the specific model.

Front page of the four-page label has space for listing the price, amount of down payment, and monthly payments under a deferred payment plan.

In the "how it is made" section such facts are listed as a gauge of steel used in the cabinet, type of insulation and thickness, information on freezer and compressor mechanism, and type of refrigerant used.

"What it can do" section of the label will list temperatures obtained in different food keeping sections for each setting of the control dial, ice cube freezing time, and similar information regarding performance of the product.

Gain In Families Seen As Boon To Sales

NEW YORK CITY—An expanding market during 1941 for refrigerators, laundry equipment, radios, electrical appliances, and other products and services sold primarily to the family unit, rather than on a per capita basis, is forecast by Arno H. Johnson, director of research for J. Walter Thompson Co., advertising agency, in an analysis based on U. S. Census returns.

The "family unit" classification, which accounts for approximately 45% of the total consumption expenditures by all people in the United States, includes such items as automobiles, telephones, pianos, housing, furniture and home furnishings, silverware, hardware, heating and cooking equipment, in addition to refrigerators and appliances. All these products depend for sales expansion primarily on the number of families rather than on the number of individuals.

There will be more than 35,000,000 family units in 1941, the survey points out, as compared with the 1930 figure of 30,000,000. Noting that family units are increasing at the rate of 480,000 a year, the study declares:

"Far too much attention has been focused on the declining rate of growth of the United States' population. Too few have recognized the significance of the offsetting rapid increase in family units. The 1940 census shows that, while population has grown approximately 7% since 1930, the number of family units has grown 16.3% or twice as fast."

Philco Advance Orders Double Last Year

PHILADELPHIA—Advance orders for more than twice as many 1941 Philco refrigerators have been placed since the new line was introduced recently as a year ago at this time, it was announced by Larry E. Gubb, executive vice president of Philco Corp.

"Although the new Philco refrigerators were introduced only a few days ago, demand for them is far in excess of our expectations," Mr. Gubb said.

Frigidaire '41 Ranges Claimed To Have Faster Cooking Unit

New Surface Unit Adds 100 Watts; Nine Models Included In Line; Deluxe Models Have New Designs

DAYTON, Ohio—Increased speed of from 12 to 18%, with a new surface cooking unit developed in the company's own laboratories, is claimed as a major improvement in the 1941 Frigidaire electric range line.

Of tubular design, and permanently sealed against outside air to prevent oxidation of the enclosed heating coil, the new heat units allow an increase of 100 watts in the capacity of both the large and small top units, it is claimed. Large unit in 1941 models is rated at 2,100 watts, while the smaller units have a capacity of 1,300 watts.

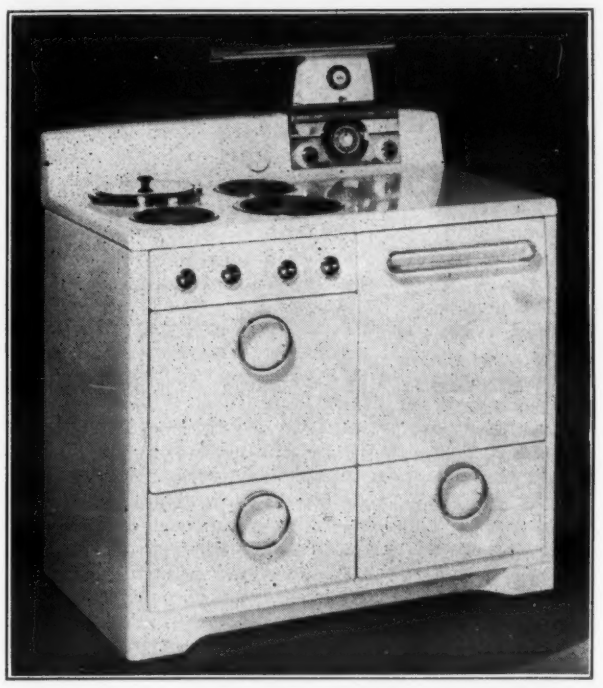
The new tubular units are constructed of stainless steel, are easily cleaned, and each has a stainless steel, removable drip tray. Every range in the line is equipped with the new type surface units.

Nine models are included in the Frigidaire electric range line this year. These models are the B-70, B-60, B-45, B-35, B-15, B-10, L-10, BC-5, and A-6. All "B" models are of the solid base type, the "L" model is a low-priced leg type, the "BC" model is a combination range offering both electric cooking features and coal and wood heating facilities, while the "A" model is designed for installation in apartment houses.

The B-70 has two ovens, while each of the other ranges has single ovens. All regular ovens are full size.

To provide larger top surfaces and heavier oven insulation, deluxe models B-70, B-60, and B-45 now have a 40-inch wide chassis in place of the former chassis of 38-inch width. Because of the enlarged space made available around the oven liner, additional thicknesses of insulation are used.

New designs have been adopted for the deluxe models. The B-70 twin-oven model and the B-60 single oven model are identical in design, except that the B-60 contains a warming drawer in place of the second oven in the B-70. A separate design is used for the B-45.



Modern design, with fluorescent top light, circular chromium drawer handles, and oval handle on the oven door distinguish the B-60, top model in Frigidaire's 1941 electric range series. Front and rear instrument panels are sloped for easier reading and cleaning.

Handles on the oven and drawers of the B-70 and B-60 are a noticeable new feature of cabinet design. Main oven door has a long, oval bar type chromium finished handle. Other handles on each of these models are rings of modernistic appearance. Finish of the circular handles also is chromium.

This year, the B-70 and B-60 deluxe models offer fluorescent lighting, encased in a chromium finished shade. The B-45 model is equipped with regular top lighting and other models in the line, except the combination and small apartment house ranges, also are fitted with range lamps.

The Frigidaire "Cook-Master" in 1941 models incorporates several refinements designed to make it easier to use. A dial is set for the time cooking is to stop, then a small knob is adjusted to indicate the number of hours foods should cook. At the proper time, the oven turns on and then shuts off automatically when cooking is completed. A one ring dial is used in 1941 models.

The B-70 and B-60 models have bases which are an integral part of the cabinet. Formerly, bases of all models were separate pieces which were fitted into the bottom of the cabinet when the range was installed in the kitchen. A one-piece steel cabinet and a one-piece cooking top are retained as features. Full porcelain finish is employed throughout the line.

The "Thermizer" deep well cooker has undergone several refinements. The new Frigidaire tubular heating unit is used in the cooker as it is with all surface cooking units.

Operation of the well cooker is controlled, in deluxe models, by the "Thrifto-matic" switch, that may be turned to "high" position and which turns to low automatically during any period up to 30 minutes.

All three deluxe ranges this year have automatic oven illumination.

THE new 1941 NATIONAL REFRIGERATOR MARKET REPORT

LISTS OVER 2000 MAKES AND MODELS

COMPLETE ILLUSTRATIONS · SPECIFICATIONS

ASSIGNS FAIR TRADE-IN VALUES

A survey by the Associated Refrigerator Plant, Inc., shows that 96% of all trade-ins are boxes manufactured between the years 1928 and 1934. In view of this fact — it is imperative that all dealers trade conservatively if they want to tackle the replacement market and make a fair margin of profit.

Summary of Ages of 1198 Trade-In Refrigerators

Boxes Received	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	Totals
Frigidaire	29	62	127	8	17	17	79	14	7	2	0	362
Westinghouse	0	0	0	0	14	42	15	7	0	0	1	78
Norge	0	0	0	0	85	19	37	9	1	0	0	152
General Electric	0	59	104	58	63	18	43	33	5	0	0	383
Kelvinator	0	10	21	21	20	36	65	42	6	2	0	223
												1198

Percentages of boxes traded in within years as listed below on basis of this survey:

1928 — 1931 56%
1928 — 1932 67%
1928 — 1933 87%
1928 — 1934 96%

NOTE: These figures included only refrigerators purchased by the Associated Refrigerator Plant, Inc. No boxes sent in for reconditioning are included.

Customers are educated to accept published trade-in values in other fields — they will accept published prices of trade-in values in the refrigerator field.

Act Now — eliminate disastrous competitive trade-in allowances in your locale by adopting "The National Refrigerator Market Report."

NRMR

THE TRADE-IN BLUE BOOK INSURES PROFITS ON SALES BECAUSE....

1 It lists and illustrates over 2,000 models of domestic type refrigerators so that they may be readily identified by customer and dealer. Thus all guesswork as to age or model is eliminated.

2 It gives a fair, conservative value to each model listed, and thus eliminates the danger of excessive allowances.

3 Its neat and complete make-up impresses the customer — and in general its appearance and lists serve as an effective antidote for the customer's inflated sense of value of his "trade-in." SEEING IS BELIEVING!

4 Its trade-in appraisal values are designed to let the dealer MAKE A PROFIT on his replacement sales.

5 Its complete editorial section tells the dealer how to trade profitably, how to resell the refrigerator traded — HOW TO RECONDITION A REFRIGERATOR.

ONE TRADE-IN PROPERLY EXECUTED ON THE BASIS OF PRICES ESTABLISHED IN THE BLUE BOOK WILL PAY FOR THE COST OF A BOOK MANY TIMES OVER.

ORDER NOW $3.50 EACH

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USE ENCLOSED ENVELOPE

Refrigeration and Locker Men Form Committee To Study Plant Standards

(Concluded from Page 1, Column 4)

of the 30-odd men—representing the refrigeration industry, the locker industry, agricultural interests, and educational institutions—who met Jan. 15 at the Blackstone hotel here, in conjunction with the All-Industry Show.

Named to the steering committee were Orville Hankins, who acted as chairman of the meeting; David L. Fiske, national secretary of the American Society of Refrigerating Engineers; and Wayne Carver, editor of Locker Patron.

Announced purpose of the joint committee, which is to be composed of those attending the organizational meeting plus representatives of any other interested organizations which wish to participate, is to formulate out of their pooled technical knowledge a set of proposed locker plant standards and to promulgate this set of standards for the benefit of the locker industry as a whole.

First job of the steering committee will be to appoint sub-committees on four all-inclusive phases of the locker business—plant design and construction, operation and management, food preservation, and public relations.

These sub-committees will then institute studies of the topics to which they are assigned, and will prepare their recommendations. Coordination of this work, the assimilation of the recommended standards, and the publishing of the final results will be the work of the steering committee.

H. B. Pownall of York Ice Machinery Corp. neatly summed up the general purpose of the meeting when he stated that there seemed to exist a necessity for some sort of locker plant standards, especially for the benefit of prospective plant builders or buyers.

He suggested that the A.S.R.E. set mechanical standards such as room temperatures, coiling required, etc., and that the National Frozen Food Locker Association establish requirements for sanitation, service, etc.

Goal toward which the committee should work, he declared, was that of improved refrigeration facilities in locker plants, and better service to locker patrons.

Both Mr. Fiske and Louis S. Morse, York executive engineer and a longtime member of A.S.R.E., reiterated the willingness of the A.S.R.E. to serve as a sponsoring body for any set of locker plant standards adopted by the committee, thus lending to these standards the benefit of the society's knowledge and experience, and the weight of its approbation.

Roger Sprague of Baker Ice Machine Co. expressed the fear that adoption of any such set of standards might in effect constitute an indictment of some existing plants which might not measure up to the standards decided upon by the committee as "ideal."

Other members of the committee, however, made it clear that any set of standards adopted would not be made binding, by legislation or any other means, on any locker plant. These standards, it was agreed, should merely serve as a concrete expression of what the most qualified minds in the country considered to be the most satisfactory locker plant conditions.

Following the publishing of these standards, it was pointed out, it would be up to the management of each plant to decide whether to conform to them or to ignore them.

Kelvinator Gets Defense Orders

(Concluded from Page 1, Column 3)

The refrigerators, which are all new 1941 models of the type introduced by Kelvinator only several weeks ago, are being manufactured in the company's plant in Detroit, and delivery on them will begin immediately, the announcement said. They have 6¾ cu. ft. of food storage capacity and are built with the latest type of sealed mechanism, it was reported.

The company announced that the orders for 25,000 refrigerators were in addition to orders for 4,000 refrigerators already received.

RSES Members Work and Play at Convention

Irving Alter of the Harry Alter Co. took these excellent shots of members of the Refrigeration Service Engineers Society at work and play during the convention.

(Left) R.S.E.S. national chairmen A. Don McGill, Peoria, Ill.; Ed Summer, Baton Rouge, La.; and A. W. Fenwicke, Cleveland, chairman, educational committee.

(Right) Facing camera are A. W. Gruver, Ironton, Ohio, second vice president; C. Buschkopf, Beaver Dam, Wis., first vice president; E. A. Plesskott, St. Louis, president.

(Left) More members of the R.S.E.S. executive board in serious session. Gordon Burns, Toronto, Canada, retiring president; Claude Brunton, Huntington, W. Va.; J. L. Driskell, Burley, Idaho; and John Shepard, Winnipeg, Manitoba, Canada.

(Right) Harry Busby, Chicago; W. C. Metcalf, Joliet; and C. L. Hartman, Rock Island, are big factors in the Illinois R.S.E.S., but on Wednesday night they were just part of the membership having a big time. The ten-gallon hats are part of the Rodeo Party "atmosphere."

(Left) Irving must have loaned his camera out, for here he is, dancing with his wife at the R.S.E.S. party. Couple to his right is Mr. and Mrs. Al Weil, Refrigeration Maintenance Corp., Chicago.

(Right) President Plesskott has as his guest Dave Fiske, national secretary of A.S.R.E.

Exhibitors Report Substantial Orders

(Concluded from Page 1, Column 5)

as compared to 1,041 who were on hand for the "big night" last year.

Buying interest was at a high level at the show, many exhibitors expressing themselves as exceptionally well pleased at the results, and some newcomers expressing genuine amazement at the keen interest displayed by visitors, and the "I want to talk business attitude."

United Refrigerator Mfg., Inc., which was exhibiting on the mezzanine floor, wrote $15,000 of orders in a single day. Taylor Freezer Corp., another booth very near to United's, is said to have written orders that grossed nearly $15,000 in a short period during the show.

One manufacturer of machine equipment, who was showing a brand new item, lined up six major wholesaling accounts.

Temprite Products Corp. estimated that it could have sold 60 of its new water chiller-storage units off the floor if they had stocked them in the exhibit.

Officials of Grand Rapids Brass Corp., who said they took space as a "gesture" of their participation in the industry, professed themselves as amazed at the actual number of prospects for real business that they rounded up during the show.

Perhaps the keynote of the results of the Exhibition was best expressed by Harry Thompson, Copeland Refrigeration Corp. president, and one of the oldest oldtimers in the business. Said Harry:

"It was the best industry show I've ever seen anywhere, anytime."

Carrier Men To Meet

SYRACUSE, N. Y.—A two-day meeting of Carrier distributors, dealers, and the company's field organization has been scheduled for Feb. 24 and 25 here. This will be the first national convention held by Carrier Corp. since the firm's activities were consolidated at Syracuse.

RSES Members Jam Convention Vote To Become 'International' Group

(Concluded from Page 1, Column 2)

Atlanta; S. B. Garland, Worcester, Mass.; J. B. Shepherd, Winnipeg, Canada; A. D. McGill, Peoria, Ill.; and A. M. Fenwick, Cleveland; E. A. Summers was named sergeant-at-arms.

Packed houses at each of the three half-day sessions were rewarded with an interesting and well-balanced program of technical talks and educational features designed to help them to be better business men and refrigeration technicians.

Importance of the refrigeration service man as an integral part of his community's business life was pointed out by C. B. Herbert, Herbert Refrigeration, Waterloo, Iowa, in a talk titled "Service Is a Business." The right and wrong methods of dealing with customers were presented by Charles R. Logan, Superior Valve & Fittings Co., in "Selling Your Services."

On the technical side were addresses on "Problems of Refrigerant Distribution Through Multi-Circuit Coils," by A. B. Schellenberg, Alco Valve Co.; "Why Fins?" by Israel Kramer, Kramer Trenton Co.; "Air-O-Matic Absorption System," by Glenn F. Zellhoefer, Williams Oil-O-Matic Heating Co.; "Properties and Characteristics of Refrigerants," by R. J. Thompson, Kinetic Chemicals; and a movie on "Precision Manufacture of Condensing Units," by C. M. Brown, Tecumseh Products. Digests of most of these papers will be published in future issues of the NEWS.

Enlivening the convention's final session was a "take-it-or-leave-it" session of questions on common refrigeration problems and practices, conducted by L. C. McKesson, Ansul Chemical Co., with each contestant given a chance to answer five questions, value of which doubled each time to make possible a total of $8 if all were answered correctly.

Contestants selected their questions by number from one of 12 series placed on a large board. General topics of the questions were as follows:

1. Auxiliary suction line controls. 2. Household refrigerators. 3. High side floats. 4. Thermal expansion valves. 5. Dryers and drying agents. 6. Refrigerant metering capillary tubes. 7. Temperature controls. 8. Refrigerants. 9. Abbreviations and initials. 10. Evaporators. 11. Copper tubing. 12. Refrigerant condensers.

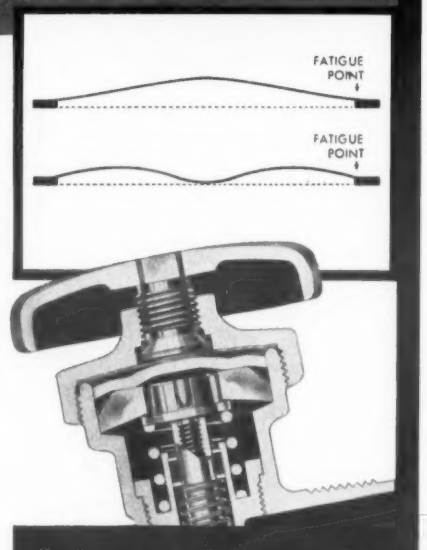
In their final business session, R.S.E.S. members voted a change in their constitution to substitute the word "international" for "national," as more adequately descriptive of the scope of the R.S.E.S.

STREAMLINE PRODUCTS

Longer Diaphragm Life

★ SMALL MOVEMENT OF DIAPHRAGM ★ MUCH LESS METAL FATIGUE

★ DIAPHRAGM AREA INCREASED 20% ★ NEVER DEFLECTED BEYOND NORMAL CENTER



● In the new Tripl-Sealed Line Valve the life of the diaphragms is greatly prolonged, thus immeasurably adding to the life of the valve itself in service.

In conventional diaphragm operation the diaphragm operates through and beyond its center point, producing what is generally known as "oil can" action. This continual snapping when opening and closing the valve fatigues the metal at the edges where it is secured to the body, and in a comparatively short time results in service failure of the valve. The diaphragm of the new valve has approximately 20% increased surface area over other types of diaphragms in similar sized valves, but most important of all IT IS NEVER DEFLECTED PAST ITS NORMAL CENTER WHEN OPENING OR CLOSING THE VALVE.

A single turn only is all that is necessary to open or close.

MUELLER BRASS CO.
PORT HURON, MICH.

MUELLER BRASS CO.

MUELLER BRASS CO. PORT HURON MICH. ORDER FROM YOUR JOBBER

Your Jobber gives you prompt delivery. Accurate service over the phone or in the shop on whatever you need... and at the time you need it.

PORT HURON, MICH.

EASY BENDING

You get it in WOLVERINE TUBING

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WOLVERINE TUBE CO. DETROIT

Great Array of New & Improved Products Displayed at All-Industry Show

Many Refinements Made In Parts and Accessories For Refrigeration Systems

Editor's Note: The following information is a roundup of the items that were displayed at the Third All-Industry Refrigeration & Air Conditioning Exhibition held last week in Chicago. Purpose of the information is to tell readers briefly "what's new" and to provide a guide to the items being featured by the manufacturer. For further details, write the manufacturer.

Tecumseh Hermetic Has Condenser In Base

Several new condensing units were shown by Tecumseh Products Co., probably the one drawing the most attention being a compactly designed hermetic unit with the condenser mounted below, in the base, on a horizontal plane.

This particular unit, a ⅛-hp. job, has a suction valve and a dehydrator, but no liquid valve. It is shipped with a processing tube attached, so that it can be charged at the plant. Upon receipt of unit by the dealer, the processing tube is returned to the plant.

These Tecumseh hermetics are completely sealed, being electrically welded. They have a built-in dryer and strainer, and are made for operation with capillary tube and restricter tube. Another feature is the use of an external starting relay with built-in thermal overload.

Other new units shown by Tecumseh included new commercial size open-type condensing units on three different bases. These units have a streamlined, space-saving design, and are available with shrouded condensers.

Small size base handles sizes from a single-cylinder ⅛-hp. unit to a twin ⅓-hp. job. The intermediate size provides ⅓ and ¼ twin-cylinder models, and on the large base are four-cylinder ½, ¾, and 1-hp. units, either air or water cooled.

Marsh Complete Testing Unit Folds Into Case

A new charging and testing unit was the featured item in the Jas. P. Marsh Co. exhibit. Said to be adaptable to every operation of charging, purging, and analyzing refrigerator functions, this unit has charging and testing lines which pull right out of the case and fold up in the case's cover. Hose lines and connections are controlled by precision needle valves which are said to protect the instruments from sudden shocks and to simplify high or low side readings, charging, purging, and by-passing. Remote reading bulbs are provided.

Small Pressure Differential In Henry Relief Valve

Henry Valve Co. showed a new diaphragm snap-action relief valve with small pressure differential between opening and closing. For use with all refrigerants, this valve is equipped with a recently developed seating material which is said to assure a perfect seat every time the valve reseats. The valve is adjustable for opening pressures over a wide range, and is recommended for low-pressure refrigerants and ammonia as well. Cap is sealed to prevent tampering with pressure setting. New atmosphere relief valves and bronze line valves were included among the new Henry products on display.

Cut-Out Point Changeable In C-H Replacement Control

Effectively displayed in the Cutler-Hammer booth by means of a "blown-up" operating model was the new Bulletin 9521 single-knob replacement control switch for household refrigerators, featured by an accessible differential adjustment and mounting bracket.

With this replacement control it is possible to change the cut-out point separately, an adjustment of 4° in the cut-out point either way being possible.

The control is provided with three adjustments: the knob adjustment, the range adjustment, and the differential adjustment. For a given setting of the knob the switch will cut-in and cut-out at definite temperatures. By means of the range screw these values can be raised or lowered. Turning the screw in will lower the operating temperature and turning the screw out will raise the operating temperature. Turning the screw one half a turn will change the operating temperature about 4°.

The differential is the difference between the cut-in and cut-out temperatures. It can be changed by adjusting the differential screw. The differential is increased or decreased by changing the cut-out temperature only. It does not affect the cut-in temperature.

Sporlan Pilot Control Has Use In Air Conditioning

New product featured by Spoehrer-Lange Co. in its exhibit was a modulating pilot control for use in air conditioning work. This modulating pilot control works in conjunction with a Sporlan thermostatic expansion valve that has an external equalizer connection. The pilot control takes a bleed off from the liquid line and has its bulb in the air stream, with a manual temperature regulator connected to the bulb to permit regulation of conditions.

Also displayed were a new small 1-ton solenoid, very compact in design, and solenoids up to 20-ton capacity for "Freon-12" systems.

'Service-Sealed' Model In G-E Commercial Line

General Electric's commercial refrigeration and air conditioning department exhibited a new window-type room cooler which this year has the added functions of ventilation and air cleaning (by means of a filter), and a two-toned cabinet for styling.

Also shown was a "service-sealed" direct driven condensing unit for self-contained refrigerators.

New models in the "Scotch Giant" line of condensing units included ½ and ¾-hp. water-cooled models.

Manual Prepared on Copeland 'Copelametic'

Copeland Refrigeration Corp. centered its exhibit around the new Copelametic field-serviceable line of hermetic condensing units. Cutaway models showing interior design and operating features of this machine, such as were on display at the show, will be available to dealers for showroom and promotion purposes, stated Frank J. Gleason, vice president.

A pocket-sized service manual on the new Copelametic unit was also introduced at the Show.

Mills 3-Hp. Unit Is Both Air & Water Cooled

New items in the Mills Novelty Co. booth included a 10-hp. compressor with shell-and-tube condenser, a 3-hp. unit which is both air and water cooled, and a No. 8 compressor body, and a gas-engine compressor unit. The 10-hp. job is the largest stock model ever produced by Mills.

The 3-hp. unit is air cooled when running on light loads, but resorts to supplementary water cooling when the load grows heavier. Mills men claim that this is the first time that such a unit has been offered by any manufacturer as a stock production model. The new compressor body merely fills out the company's line.

The gas-engine job, while not exactly new, is being carried for the first time as a stock model. It is intended for farm use.

Carrier Humidifier Makes Use of Cypress Pad

Newest brain-child of the Carrier Corp. on display at the exhibition was the company's low-priced, plug-in humidifier for home and office use. A chemically treated pad of cypress fiber absorbs moisture from the water pan of this unit, and then passes this moisture on to the air which is drawn past the pad by means of a specially designed fan with plastic blades. Walnut cabinet of this unit is only 24 inches high.

Imperial Makes 'Torpedo' Dehydrator In One Piece

Borrowing a note or two from the vocabulary of modern warfare, Imperial Brass Mfg. Co. has named the new dehydrator which it had on display in its booth at the All-Industry Show the "Torpedo," and has described it as "the most formidable weapon in the war against moisture." This dehydrator has a one-piece shell, is of copper and brass construction throughout, and is readily refillable. It is packed with Silica Gel.

McCord Condenser For Commercial Hermetics

New in the McCord Radiator & Mfg. Co. exhibit was the company's flat tube commercial hermetic condensers, featuring fewer joints and improved manifold construction. These condensers are made in ¼, ⅓, and ½-hp. sizes. They are constructed of a series of 1-row condensers hooked together.

Alco Introduces 'Evapotrol,' Expands 'Multi-Outlet' Line

New in the Alco Valve 1941 line is the "evapotrol," a small capacity pressure regulator with some advanced design features.

Another new Alco product is a three-way magnetic valve.

Range of the multi-outlet thermo expansion valves for methyl chloride, "Freon-12," and ammonia has been increased rather widely, with double-seated valve construction finding favor in the larger models.

'Greastop' Filter Solves Restaurant Problem

The "Greastop" filter for application particularly in restaurants gained considerable attention in the Air-Maze Corp. exhibit.

This is a grease removing filter that is generally placed in kitchens of restaurants, and is said to remove the grease-laden stream of smoky air that is so prevalent in such kitchens. It is made of a heavy galvanized wire screen mesh.

Copper, Lead Plated Gaskets Shown By Chicago-Wilcox

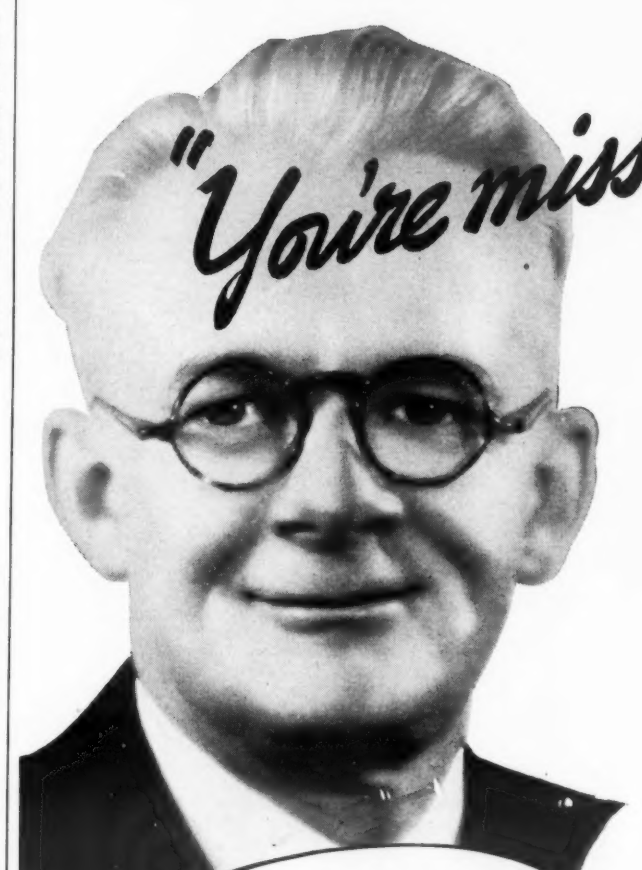
Exhibited for the first time by Chicago-Wilcox Co. were the solid copper, lead plated gaskets being used by some of the large manufacturers of refrigerating equipment, notably Frigidaire and General Electric. These are available only for original equipment, however.

Chicago-Wilcox also showed how it is developing its trend to packaging of replacement gaskets. Packaged lines for several makes have been added for the first time recently.

G-E 'Tri-Clad' Motors Have Special Insulation

General Electric Co.'s new "Tri-Clad" capacitor motor was featured in that company's display. Triple insulation is provided on these motors through use of plastic-coated Formex wire, a synthetic-resin varnish which bonds the conductors into a hard unit, and a final coat of "Glyptal Red." A demonstration of this Formex wire, with its baked-on insulation, was in operation.

(Continued on Page 7)



"You're missing a good bet . . . if you're not selling the whole works"

J. N. Wilson — successful G-E Dealer — Owner of Wilson Electric Company, Bennettsville, S. C., knows what he's talking about. His books prove he's making money with the complete G-E lines. What he has to say may show you the way to bigger and better profits and a healthy year 'round business.

TURN TO GE

"That's what I did—turned to G-E. Today I sell the whole works. Air Conditioning—winter and summer—and Commercial Refrigeration. It's the best prescription I know for a healthy business. And when I say healthy, I mean *steady, profitable* sales. *Every* month in the year. Without any discouraging seasonal slumps.

THE G-E MONOGRAM SELLS GOODS!

"You hear a lot about public acceptance for certain products. Well, nobody enjoys *more* of that than General Electric. G-E's unusually high quality and fine reputation *make* sales. They keep me and my customers *sold*. I know because it's G-E quality and reputation *I cash in on!*

G-E BACKS UP ITS DEALERS!

"Mighty important too for a really *profitable* business is all the *extra* help only a *big* company like G-E can give. Advertising and sales promotion. Direct mail and display. Technical and sales training. Financing, accounting, organizing. I cash in on these as part of the great G-E dealer set-up. *You can too.*"

"G-E IS THE COMPLETE YEAR-'ROUND PROFIT LINE"

COMMERCIAL REFRIGERATION
Water Coolers; Conditioned-Air Cooling Units; Condensing Units; Storage Cabinets; Dairy Merchandisers; Ice Cube Makers; Beverage Coolers.

COOLING
Store Coolers; Room Coolers; Air Circulators. A wide market among homes, shops, hotels and hospitals.

HEATING
Oil Burners — attachment type; Oil Furnaces (Boilers); Gas Furnaces (Boilers); Warm Air Furnaces—oil or gas fired. Units for steam, vapor, hot water and warm air systems.

You can be a G-E Dealer if you can fill certain requirements. For year-'round profits, fill in and mail the Coupon today.

GENERAL ELECTRIC

GENERAL ELECTRIC CO.
Div. 170, Bloomfield, N. J.

I want all details on the G-E Dealership for my territory. This is confidential and puts me under no obligation.

*Name*_____

*Street*_____

*City*_____ *State*_____

Visitors Saw and Heard Many Interesting Things At the All-Industry Show

(1) This charming drum majorette, symbolizing the "progress parade" of the Exhibition, greeted all registrants. (2) Many exhibitors got up early to put final touches on their equipment, like Lou Pellegrini of Marlo Coil.

(3) Crowds gathered early on the mezzanine—where, at the Taylor Freezer booth, we find George Le Dell of Taylor, C. E. Ehrenhardt and T. R. Eberwine of G-E, L. A. M. Phelan of Taylor, E. H. Hammond of G-E, and Carl Meyer of Taylor.

(4)—and they crowded into the booths in the main exhibition hall, as evidenced in the G-E booth.

(5) Visitors got down to talking business early. John Marshall of Wolverine Tube explains a product to W. E. Lloyd, Acme Industries.

(1) Some visitors, such as William C. Miessemer and L. L. Palmer (center) of the J. Carl White Co., Phoenix, wore outfits advertising their section of the country. With them in the booth of the NEWS are George A. Anderson (left) of Virginia Smelting Co.'s New York office, and John S. McClure, Sullivan, Ill. dealer, and B. N. Cheever, International Harvester.

(2) Uniforms were in evidence, too. When R. B. Anthony, Jr., son of the Chicago-Wilcox Co. executive, visited the show, he brought along some of his fellow Naval Reserve officers.

(3) The show provides a meeting place for old friends. Al Dietl (left) of Newark, who many years ago bought out the refrigeration service business operated there by F. E. "Jerry" Jernberg, greets the now Mills refrigeration sales manager.

(4) The N.R.S.J.A. meetings are always preceded by small group discussions. Here we have Oliver Forslund of Kansas City, Pete Askew of Los Angeles, and Howard Hubbell of St. Louis talking it over.

(5) Another group of supplies jobbers finds Alex Holcombe of Philadelphia and T. W. Binder of Newark upholding the east in an argument with Paul Shapiro and Howard Zerbe of the F. S. Langsenkamp Co. branch store in South Bend, Ind.

(1) When Editor Taubeneck of the NEWS spoke on national affairs and the future of the industry at the Monday luncheon sponsored by the N.R.S.J.A. he precipitated some red-hot debating. Here are J. F. Boyenton of the Noland Co., Norfolk, Va., Henry W. Merkel, Merkel Bros. Co., Cincinnati, Leo H. Gorton, Machine Tool & Supply Co., Tulsa, and H. W. Dittmeyer, United Wire & Supply Co.

(2) C. E. Borden of the A. E. Borden Co., Boston (new president of the N.R.S.J.A.); Jess Rauch, California Refrigerator Co., San Francisco; and Frank Langsenkamp, Indianapolis jobber, listen to an unidentified Monday luncheon guest.

(3) Back to the Show, to watch Naomi Anderson load the popguns in the clever Carrier exhibit.

(4) The "listening post" stunt brought a lot of people in to hear about "what's new" in G-E motors, from a booth broadcast.

The feminine contingent at the Show helped to brighten up things a bit. (1) Model Jane Parham helped to demonstrate the Deepfreeze units.

(2) The big smiles on the faces of the gentlemen in the Alco booth were occasioned by the visit of Mrs. Charles Allen (left) and Phyllis Van.

(3) Serene Sandal was the name of the lovely looking girl that had visitors stopping at the Fedders booth. Here she is surrounded by C. F. Ahlheim and Bill Keefe of Fedders, and C. J. Hall of American Radiator Co.

(4) Phyllis Van, Mrs. Honeychurch, Mrs. Nelson, and Mrs. Knight are completing a tour of the show.

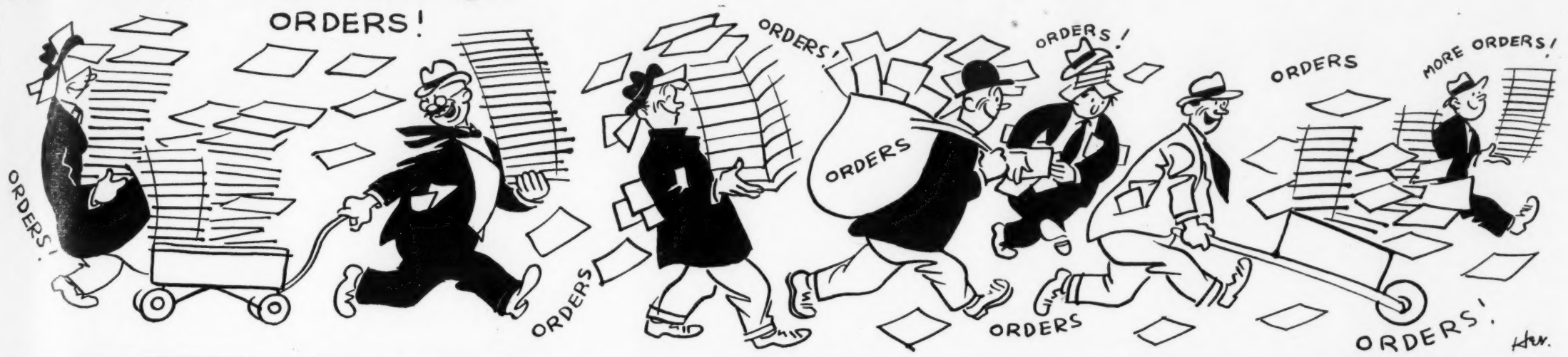
(5) C. C. Jahrling and Miss E. McGlone in the Rotary Seal Co. booth.

More executives at work. (1) Tom Pendergast (right), vice president of Universal Cooler Corp. (2) Charlie Gary, sales manager of Henry Valve Co., listens to questions.

(3 and 4) Visitors jam into the booths of Automatic Products Co. and Davison Chemical Corp.

(5) Emil Green of Ideal Beer Cooler demonstrates a beer cooler.

The Return from Chicago - - -



What's New . . . from the Show

(Continued from Page 5)

'Wiping Contacts' Feature New Square D Control

"Watch the wipe" was the by-word in the Square D Co. booth, in which a whole series of Class 9110 Square D regulators for commercial refrigeration machines were shown in operation.

Feature of these controls is their positive ability to handle rated electrical loads, Square D officials declare. By means of the pronounced "wiping" action on the contacts introduced by a unique operative mechanism it is possible to assure absolute control through the elimination of welding difficulties. The contact and toggle levers are balanced to eliminate the effects of severe vibration.

Differential and range adjusting screws are external with rotation indication on the cover nameplate of the Class 9110 regulators. Switch ranges and differentials are stamped in pounds or degrees and approximate indication is found on the scale underneath the slip-on cover. A four-position mounting bracket is provided with each control.

Another new Square D item was the 9150 general purpose solenoid valve. The valve body is a special brass forging, with an attractive blue stippled cover. The armature is of stainless steel. A shading coil assures the sealing of the armature with the flat surface above it so as to eliminate noise and vibration. Needle is of hard non-magnetic stainless material, and valve seat is of the same material, somewhat softer, to assure positive closing. The seat is removable to allow armature replacement, which can be done after removal of the bottom plug.

Fedders Adds Ceiling Unit, Plus Other Lines

A host of new items in the several lines which it manufactures were on display in the Fedders booth.

The Fed-R 4-way ceiling cooler is a square designed cooler which sends the cooled air in all directions, the blower part of this enclosed unit cooler being on a horizontal plane.

More models have been added to the panel cooler line to broaden the range, and design changes now give a reduced airflow quantity through the cooler, and an increased evaporator surface.

New Fedders ice cube makers are now equipped with E-Z out trays.

The model 410 Fedders thermostatic expansion valve has undergone considerable refinement. The bellows is larger with more convolutions, and the valve is constructed with a knife-edge joint, eliminating sweat joints and gaskets.

Also shown was a new line of straight-fin condensers in copper, tin dipped.

Ideal Offers 'Different' Beverage Cooler Models

Unusual combinations in beverage coolers marked the display of the Ideal Beer Cooler Co.

One such model was the combination dry bottle beverage cooler with wet reloader. The wet reloading compartment chills a new batch in less than 30 seconds, it is claimed.

This cooler has six dry compartments, each divided in two permitting the storing of 12 different brands, in addition to the wet compartment, total capacity being 26 cases of 12-ounce beverages.

In a blower-type dry beverage cooler shown by Ideal defrosting is said to be unnecessary because of the "Arctic Fin" coil design. Blower stops automatically with the compressor. Capacity is 45 cases of 12-ounce beverages.

Another model that combines an ice cube maker with a dry cooler has three cooled compartments just below the serving top. One contains space for making 280 ice cubes at one freezing, another contains a large tray for storing ice cubes, and the third offers a spot for cooling lemons, limes, and glasses.

Equipped with Ideal "frost draw" refrigerated faucets is the new draft beer cooler. Instantaneous temperatures down to 32° F. are claimed for this beer cooler, which has a capacity up to four ½ barrels. A built-in flushing device allows complete cleaning of equipment.

Brunner Introduces a 1/3-Hp. Hermetic Unit

Brunner Mfg. Co. of Utica, N. Y. exhibited its new ⅓-hp. hermetic compressor, as the spearhead of the company's complete line of commercial refrigeration and air conditioning condensing units.

The new unit is especially adapted to all types of "package" refrigeration equipment, and may also be used for other types of small commercial installations.

Rotary Compressor For Transit In Waukesha Booth

For use with semi-trucks and trailers is the new Waukesha "Ice Engine" shown by the Waukesha Motor Co. of Waukesha, Wis. Powered by a small 4-cylinder gasoline engine, the unit uses a blade-type rotary compressor which starts completely unloaded. As the refrigerant pump rotates the blades are thrown into position by centrifugal force, but do not reach this position until a certain speed is obtained.

Features of the new unit, which is modeled after the railroad air conditioning units now used by 22 American roads, are compactness, lightness, and instant availability for service.

Diceler Expands Models In 4-Cylinder Radial Line

The Diceler radial 4-cylinder compressor, for household refrigerators, water coolers, and small commercial installations featured the exhibit of the Deissler Machine Co. of Greenville, Pa. Introduced at the All-Industry Show last year, the unit is now available for both "Freon-12" and methyl chloride applications.

The company also exhibited a line of commercial condensing units for all types of refrigeration applications.

'Sanitary' Chest Holds 100 Lbs. Frozen Foods

The "Sanitary" low-temperature chest, holding 100 lbs. of frozen foods, manufactured by the Sanitary Refrigerator Co. of Fond du Lac, Wis., will sell for $165.40 retail. The new unit, which has 2-cu. ft. capacity, will be held at zero, or lower, by means of a hermetic compressor.

The company also builds the "Continental" line of reach-in refrigerators, which have both high humidity and frozen food compartments. Wet and dry beer coolers were also shown at the Sanitary booth.

American Brass Develops 'Electro-Sheet' Copper

"Electro-Sheet" copper, which is produced in wide continuous sheets by electrolytic deposition on a lead drum, was the most unorthodox product displayed by American Brass Co. This sheet metal is non-porous and is available in weights as low as 1 ounce per square foot. Although it has been manufactured for about four or five years, it is only recently that it has been adapted to use for insulation and other refrigeration applications. Samples of the company's various types of brass and copper tubing also were on display.

'Chillquick Flexline' Cools Draft Beer Line

Chill-Quick Co. of Milwaukee exhibited its "Chill-Quick Flexline," which is the principal unit of a patented direct draw beer dispensing system. This flexible, insulated line carries beer and refrigerant lines from a basement precooler to a special refrigerated faucet above. The system is claimed to eliminate wild beer and the necessity of morning "draw off," thus effecting material savings for beer dispensers.

The company also manufactures a refrigerated tap rod, used in connection with beer dispensed from an under-bar refrigerated compartment.

New Cases, Cabinets In United Refrigerator Co. Line

Both wet and dry storage beverage coolers were displayed by the United Refrigerator Mfg. Co. of St. Paul. The company manufactures a line of reach-in refrigerators and also produces walk-in coolers in many styles and types. A feature of the line is a small full-view delicatessen case which is said to have received excellent acceptance.

INSURE Present and Future PROFITS...

CHOOSE Your Line of AIR CONDITIONERS Wisely!

● There's money being made, and far more to be made, in selling air conditioning equipment. The sooner you begin handling the right line, the stronger will be your position in a rich market. So now is the time to compare and choose. Ask yourself these four questions about the lines available to you:

Questions	Answers			
	FAIRBANKS-MORSE	LINE X	LINE Y	LINE Z
Does the name at once inspire customers' confidence? *(Why make the selling job harder than necessary?)*	**YES.** Four generations have respected this firm for fine engineering and manufacture of mechanical devices.			
Does the line offer the *right* unit for every need, large and small? *(Who wants to pass up or mis-sell half his prospects?)*	**YES,** from small room coolers to year-round complete air conditioners for the largest buildings, including everything in between.			
Does the manufacturer's engineer who will aid me know the air conditioning needs of *this* locality? *(What's ideal in New York is all wrong for Oklahoma.)*	**YES,** for he's not thousands of miles away, but in a near-by one of the 35 F-M branches.			
Can the equipment be depended upon to give satisfaction? *(If not, servicing costs eat profits, and sales soon fall off.)*	**YES.** F-M is a pioneer in air conditioning, with 111 years of experience in designing and manufacturing precision mechanical equipment.			

If you can qualify to handle the Fairbanks-Morse line of Air Conditioners, there may be an unusual business opportunity open to you. We urge immediate action, while there's still a possibility of a franchise being available in your territory. Write Fairbanks, Morse & Co., Dept. A130, 600 S. Michigan Ave., Chicago, Ill.

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STOKERS
AIR CONDITIONERS

Air Conditioners

They Wanted To Know How the New Products Worked - - and Many Placed Their Orders

(1) Framed around the "Little Giant" purger, new item given prominent display in Mueller Brass Co.'s booth, Gustave Larson, Wisconsin refrigeration supplies wholesaler and George Allen of Mueller do some serious talking.

(2) "How's this for size?" Hal McPherson of Electrimatic Corp. queries H. F. Nye, Railway & Engineering Specialties, Toronto, Canada as he struggles out with a super water valve. Mr. Nye apparently has a super installation on the fire.

(3) "Just sign right here," fast-talking Ken Newcum, Superior Valve & Fittings Co. vice president, urges Allan "Bill" Cody of Standard Brass & Mfg. Co., Houston, Texas refrigeration supplies wholesaler, while R. V. Johnson, Johnson Refrigeration Service, Manitowoc, Wis., awaits his turn.

(4) "They wipe like this," G. A. Durocher of Square D Co. tells Karl Bowman, engineer for the Fruit Despatch Co. of New York, in describing the contacts in a new commercial refrigeration control. In the background are E. F. Kueck and D. W. Scofield of Square D.

(5) J. E. Rosnell (left) and Al Brewer, Texas Co. representatives well-known in the refrigeration field, inspect the new Williams Ice-O-Matic streamlined condensing unit.

Peerless Displays Entire Line of Products

Peerless of America, Inc. exhibited some new products and a host of refinements in many items in the company's line.

Dome coolers, with a circular fan operating on a horizontal basis to discharge air on all sides, was one of the new products. These coolers are fitted with Thermek tubing, which is claimed to be especially adaptable for the circulation-type fabrication of coil surface necessary in this type of cooler. Hot water defrost is adaptable to all models.

A combination heat exchanger, drier, and strainer, all in one. Silica Gel is used in the drier part, Thermek tubing in the heat exchanger section.

New suction line check valve with removable strainer and constructed with improved seating arrangement made of molded neoprene.

Hot water discharge for evaporators, with a "continuous operation" feature. The water is heated by the discharge refrigerant, and then goes to an insulated container where it is stored until needed. An electrically controlled clock puts the hot water into action as a defroster at predetermined intervals.

An adjustable retarder valve, with adjustable differential. A junior size constant pressure valve.

"One-man" hangers for unit coolers, so-called because one man is supposed to be able to install unit coolers with these new two-piece hangers, by mounting up one, sliding the unit cooler into place, and then making it fast.

Universal motor mountings for unit coolers, making field replacements less complicated.

New additions to the Peerless cold plate line include circular plates, ice cube maker plates, lightweight plates for lockers and trucks, and an L-plate. Midget unit coolers and a manifold capacity booster are other new Peerless items for the trade.

Not designed for the refrigeration trade but an item which drew much attention at the show and considerable newspaper publicity was the "diopexis," a cold applicator for use in medical treatment of growths, tumors, tonsils, etc., which is entirely self-contained.

Each of the stainless steel applicators (which are long tubular stainless steel pieces) has its own self-contained refrigerating system, which can be turned on or off by a simple hand switch. And each applicator, which frosts up in a few seconds, has its own hot gas defrosting system, turned on by a separate switch.

Humidifier & Window Unit Highlight F-M Display

A new humidifier adaptable for either home or office use, and latest models in its window ventilator line were the center of attention in the Fairbanks, Morse & Co. display.

Attractively finished, the new F-M humidifier can be used as either end table or stand, in home or office. The unit is available with either walnut finish steel cabinet or with hand-rubbed paneled walnut wood cabinet. In addition to adding moisture to the room, the humidifier also absorbs smoke and odors and circulates the air, it is said.

Cabinets of the WH (wood) model are 16 inches wide, 16 inches long, and 24 inches high, while that of the SH (steel) model are 15½ x 15½ x 24 inches high. The unit is powered by a 1/50-hp. motor and the fan has a capacity of approximately 150 c.f.m. Pump is of the centrifugal type, with 70 g.p.h. capacity.

The window ventilator, or "Ventil-Aire" unit, introduced by the company last fall, is available for either a.c. or d.c. operation, with walnut finish cabinet standard and ivory finish available for an additional $5.

Redesigned Wizardaire Line Is Spotlighted

Certified Products Co. of Toledo exhibited a newly styled and redesigned line of Wizardaire room coolers. The exhibit featured ⅓ and ½-ton window models, finished to match any interior decorative scheme.

Visitors at the company's booth saw the units in full operation and examined cut-away models.

Plastics Used in Baffle In New Bush Coolers

What is said to be the first application of plastics to the low side field has been made by Bush Mfg. Co. in its new "Plasti-Coolers," unveiled during the Show. In this new design, Bush has replaced the conventional type of baffle—usually made of aluminum—with jet black, lifetime plastic.

Each baffle is properly pitched to give the best cold air discharge, eliminate sweating, and make more head-room available, it is said. The Plasti-Coolers, single row, are only 11⅞ inches deep, double row, only 14¾ inches deep, including 4-inch hangers. Each unit is complete with heat exchanger.

The black plastic baffles contrast strikingly with the aluminum overdrains, adding to the appearance of the unit. Also, it is claimed, the plastic baffles are more durable, and are easier to clean and keep clean than conventional devices.

General improvements in appearance have been made throughout the Bush line, and heat exchangers have been incorporated in most models as standard. Panel coolers have been redesigned to make them more easily accessible for servicing and inspection. Ice makers have been equipped with quick-release trays, and a line of evaporative plates also was displayed.

Ice-O-Matic Shows Truck & Gas-Engine Powered Units

New truck refrigeration equipment, gasoline motor-driven, and a "dressed-up" line of commercial condensing units highlighted Williams Ice-O-Matic's product presentation for 1941.

The truck refrigeration unit is designed for use in semi-trailers hauling perishable goods on long trips. Development of the equipment was started a year ago, and the equipment has been in actual production for about six months.

Compactly designed, the unit may be installed beneath the trailer body, inside the trailer, or on the outside of the trailer between it and the motor cab. The unit is available with 3, 4, or 5-hp. gasoline engine. The unit has its own gas tank, with sediment duct.

Main frame is of heavy angle iron, arc-welded to steel end panels. Operating equipment is protected by louvered panels, sides and bottom. Machine compartment door is hinged and has two self-locking door handles. Compressor uses "Freon" as the refrigerant and has a pressure feed lubrication system which, it is claimed, individually pipes the lubricant to every section where it is required. This is said to minimize seal trouble, the bugaboo of truck refrigeration in past experience.

Oil float is located in the end of the receiver, so that if lubrication fails the unit will cut out automatically. The lubrication system is said to overcome one big disadvantage of truck refrigeration plants, in that if the truck was parked on an incline the oil in the crankcase would be moved, leaving one side dry.

Improvements in appearance of commercial compressors add eye-appeal to the units, and include a symmetrically styled casing which gives full protection to the compressor mechanism. Tubular base has been built around the receiver, for lighter weight and added strength. Shields built on the units, as optional equipment, are in sections which permit easy access to any part requiring attention without necessity of removing the entire casing.

White-Rodgers Features New Temperature Control

Newest product of White-Rodgers Electric Co. is a temperature control designed especially for applications where size and mounting convenience are a factor, as in milk coolers, ice cream cabinets, beverage coolers, frozen food cabinets, etc. These controls are equipped with a reset button for manual starting.

Alarm circuit control flashes a warning light or closes an alarm circuit when the temperature rises above the safety point, providing a safeguard for applications where spoilage is costly, and enabling discovery of loss of refrigeration before harm can be done.

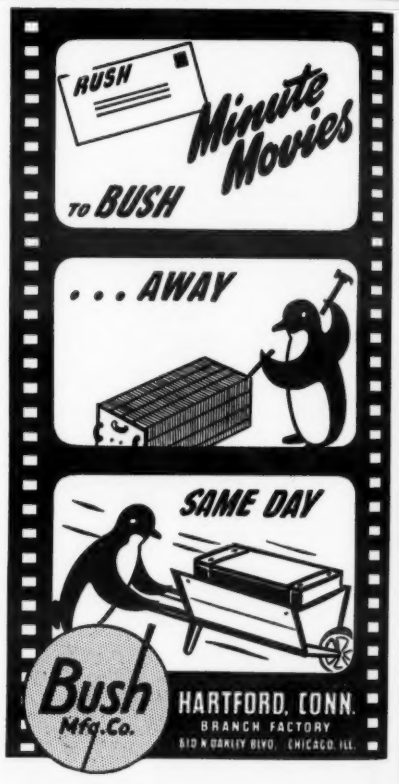
Small Taylor Counter Freezer Draws Interest

Most models in the Taylor line of ice cream freezers and counter freezers were exhibited at the All-Industry Show. Of particular interest to dealers and distributors was the small counter freezer for soft ice cream introduced by the company during the past year. This unit may be used alone, to produce "frosted malteds" continuously, or may be operated in connection with ice cream hardening equipment built by the Taylor company.

Jarrow Offers New Tool To Cut Door Gaskets

Supplementing its complete line of gaskets for both household and commercial applications, Jarrow Products Co. displayed a sample model of a new door gasket-cutting tool which it will shortly have available for use by service men.

Production of the new gasket-cutting tool is not yet under way. The device, which is triangular in shape, is designed to help the service man sell more replacement gaskets "on the job" by equipping him with a tool with which he can cut rubber door gaskets quickly and uniformly. In addition to doing the job more quickly, the new tool cuts the gaskets in such a way that the corners fit together smoothly, improving appearance of the completed job as well as its sealing efficiency, it is said.



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MILLS MIGHTY REFRIGERATION

Mills Condensing Units
By Mills Novelty Company
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From 1/4 to 25 TONS of refrigeration

Brunner Refrigerating and Air Conditioning equipment comprises air and water cooled condensing units for practically all types of commercial applications up to and including 25 tons of refrigeration... Catalog promptly on request.
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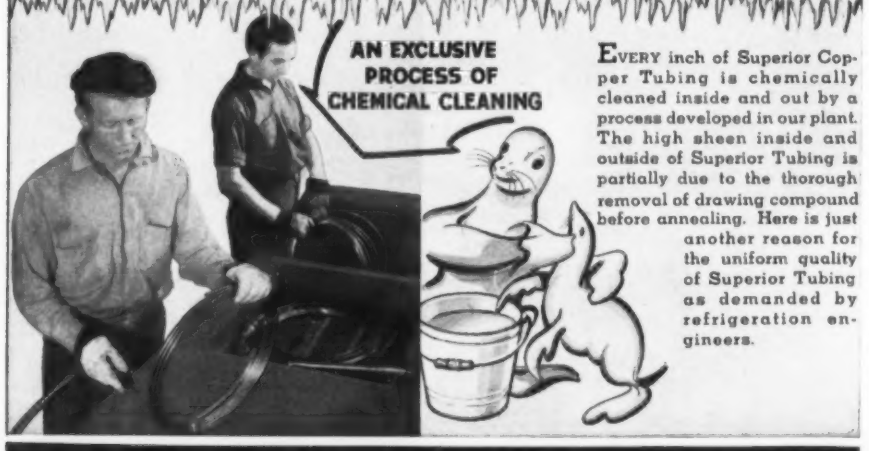

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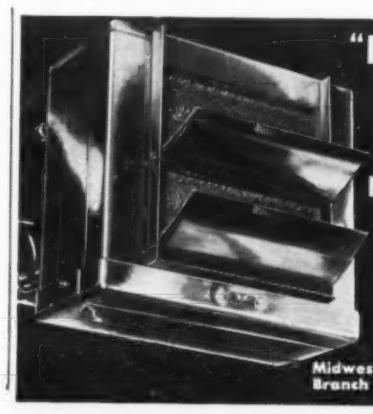

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Do You Know What To Check When Air Cooling Jobs Go Into Operation?

Exact Methods Must Be Used When Testing For Leaks and Charging At Point of Installation

Checking and adjusting the air conditioning system prior to placing the equipment in service is one of the most important duties of the service man and the application engineer.

Mistakes made at this time may result in a great deal of costly service, annoyance to the customer, and general dissatisfaction with the system. Refrigerant losses alone are expensive; poor adjustment may result in everything from burned out motors to constant loss of capacity.

Fortunately it is not typical of air conditioning installations in general, but there is a case on record of a theater system which operated for several years—always under capacity. After the equipment had been repeatedly checked, many conferences held, long distance calls made, and service reports studied—it was found that the expansion valves used in the system were in backwards!

Ordinarily, no service man or application engineer would have to be warned against a mistake of this kind.

WIRING, MOTORS

After the system is installed all motors should be examined to see that their voltage and frequency corresponds with the available electric service. Wiring should conform with local codes, and if it has been done by an electrician other than the installation man, it should be checked against the wiring diagram supplied by the engineer in charge.

All motor, pump, fan, control motor, and other bearings should be thoroughly oiled. Before the condensing unit is started it is best to remove the belts, throw the switch, and see that the condensing unit motor runs in a **clockwise** direction, when facing the pulley side of the motor. All fans and pumps should also be checked for proper direction of rotation, and necessary wiring changes made if any of the units are found to be running backwards.

Damage to pumps and condensing units, insufficient air capacity from fan, and other annoying service complaints may result from neglecting these simple precautions.

Belts that are too slack or too tight may cause loss of capacity, or motors to burn out. All belts and pulleys should be checked for alignment, as should direct drive couplings.

All water lines and connections must be checked for leaks, and if a cooling tower is employed, the pump should be started to see that it is running in the right direction and that a proper head of water is developed in the tower. When a water-cooled condenser is employed it should be drained before testing with gas.

Because of the expense of "Freon-12" and the difficulties encountered in locating small leaks, many air conditioning service men like to test the system with nitrogen or CO_2 before it is placed in operation. The former is to be preferred, as it is more apt to be perfectly dry. If ordinary CO_2 is used the cylinder should be inverted before the gas is used and moisture purged by cracking the valve.

VALVE POSITIONS IN TEST

On water-cooled compressors equipped with oil separators, with no discharge valve on the compressor, but with a purging service valve on the cylinder head, the service valves should be placed in the following positions:

Liquid receiver inlet valve—closed.
Liquid receiver outlet valve—closed.
Suction service valve—open.
Valve between oil separator and float—open.
Liquid line valves on strainer—open.
Refrigerant solenoids — energized and open.
Suction line by-pass hand valve—open.

The next step is to connect the testing gas cylinder to the suction service valve, using a small strainer in the line, and a tee with a compound gauge.

With the suction line service valve turned part way in, crack the valve on the gas cylinder, bringing the system pressure to 30 lbs. Close the cylinder valve and let stand for a few minutes. If the gauge shows no appreciable drop, continue to let gas into the system, building the pressure up to 90 lbs.

If the system will hold 90 lbs. pressure for half an hour, it is ready to be pumped out and tested with refrigerant. If the gauge drops more than 5 lbs. in this period, joints should be tested for leaks with soap suds—as leaks will produce bubbles.

Before attempting to repair leaks all pressure should be released on the lines and the system left open. Pressure will blow out solder as it is applied and a vacuum will suck it into the system. After the resoldering is done, the system should be tested again.

When the system is tight, open the purging service valve on the oil separator or cylinder head, disconnect the testing gas drum, and turn the suction service valve slowly in, allowing the gas to bleed out of the system and the gauge pressure return to zero.

TESTING WITH REFRIGERANT

After this is done the oil separator and cylinder head service valves should be opened and bled to a pressure of zero pounds. The "Freon-12" cylinder is then connected to the gauge opening in the suction line service valve, and a vacuum pump is connected to the purging service valve on the cylinder head. The suction service valve should be turned in half way, the vacuum pump started, and pressure on the system reduced to at least 25 inches of mercury. At this point close the purging service valve and cut off the vacuum pump.

"Freon-12" is then admitted to the system until a pressure of 30 lbs. is built up. The receiver or condenser inlet service valve should be opened and a high pressure gauge installed in the gauge opening. The condenser inlet valve is turned one turn so the high pressure gauge will register.

The system should be tested for leaks with an approved detector torch. If no leaks are found the pressure may be built up to saturation pressure in gradual steps.

WHEN LEAKS ARE FOUND

If leaks are found, the compressor must be run intermittently until a gauge pressure of 0 lbs. is obtained. The motor is stopped and the suction service valve closed to prevent the refrigerant from leaking back into the crankcase. Before any resoldering is done, be sure that part of the system has been vented by purging to the atmosphere through the flange or flare nut.

When the system is found to be tight close the solenoid valve, open the water supply valve, keep the "Freon-12" cylinder valve open, and start the compressor, building up pressure to 175 lbs. The "Freon-12" cylinder may be heated with a torch, if necessary to keep the compressor from cutting out on low pressure.

All joints and the high pressure cut-out should be checked at this pressure. Now drain the condenser tubes and test for refrigerant leaks at the water drain outlet.

The final step is to turn on the water, open the solenoid valve, close the "Freon-12" cylinder valve, and be sure that the low pressure control will cut out at 10 lbs. and cut in at 45 lbs.

After the system has been tested for leaks as above, with "Freon-12," it is ready for charging.

Denver Firm Moves

DENVER — Refrigeration Maintenance Co., servicing organization, has moved into a new headquarters location at 1122 East 17th Ave., comprising a display room, offices, and service shop.

'Burdened Down' Service Men Find Things Often Seem Heavier Than They Really Are

DALLAS, Tex.—Some of the refrigeration service men who in the weeks preceding Christmas boasted they could tell you "by the feel" whether a drum contained 10, 25, or how many pounds of "Freon-12" or sulphur have been saying incredibly little since Christmas.

It all came about because U. C. Boyles, who heads the Refrigeration Supply Co., of Dallas, had listened endlessly to service men tell of their ability to guess weights, and their disinclination to carry tools in boxes rather than trousers pockets because of their exceeding weight.

Mr. Boyles determined to give them one and all a chance to prove what they really could do in guessing weights, offering a fine set of tools to the prize winner. There were five other lesser prizes, articles used by the refrigeration man in his daily work.

HOLIDAY CONTEST

The guessing contest began several days ahead of the holiday and was open to all comers. The box of tools, with value of approximately $31, was chained to a counter for safety, and each visitor invited to try his skill.

Christmas eve for several years has been a red letter day at the Boyles establishment. Eggnog, chilled in the office cooler, is served to all of those engaged in the industry. It is a custom which is taking firm hold in the business, and now has been adopted by several.

The determination to find out just what the average service man was capable of in making an accurate guess of weight, Mr. Boyles says, was largely prompted by his inquiries of such men as to why they so generally dispensed with the compact modern tool boxes available, choosing to carry an assortment of tools in hip pockets where often they played havoc with the upholstering of the "bosses' cars."

'TOOL BOX TOO HEAVY'

"They told me," Mr. Boyles related, "that a box of tools was too heavy; that carrying it up eight or six or three or four flights was simply too much to expect of a man. I wondered just how much most of them knew about what a box of tools really weighed, and decided to have the contest."

Whatever was known about weights, the contest proved a winner. In all more than 100 blanks were filled out by hopeful guessers. They included contractors, salesmen, service men, and even truck drivers.

An estimate of the guesses made showed that there was approximately 25% accuracy within a reasonable range. The weight of the box of tools proved to be exactly 27 pounds. Winner H. W. Wolverton placed the weight at 27 pounds 2 ounces. One guess placed the figure at 50 pounds. Lowest estimate was 23 pounds.

Other winners were George Mefferts, D. W. Herrington, Belton Short, A. O. Dietrich, and Gilbert L. Tosch.

"The contest was a winner in every way," Mr. Boyles reported. "It attracted at least as much attention as we had hoped, and it certainly put the modern tool box where everyone could see it. Further, it went big as a holiday competition among the refrigeration men."

The serving of eggnog has become traditional at the Boyles establishment in the several years since it was first inaugurated. So much a part of the industry has it become, in fact, that a cafe which is the "eating place" of most of the "row" has likewise adopted this open house feature for Christmas eve. Also, serving of eggnog has become part of the holiday routine at the Electromotive Corp., another supply jobber.

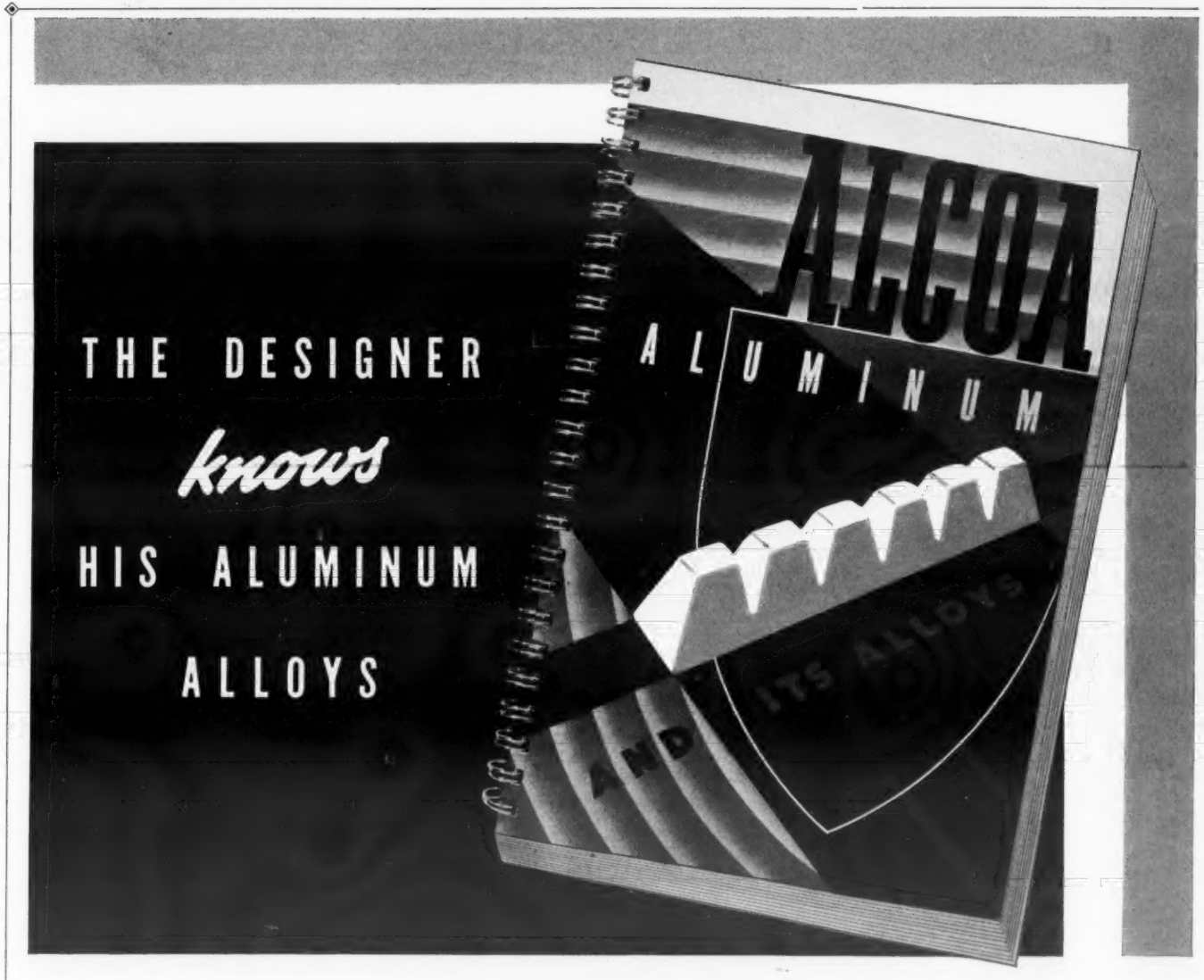
In both these places serving of the refreshments begins early and continues until the day's close. First "batch" usually is available shortly after 10 a.m.

Emerson Announces Line Of A. C. Arc Welders

ST. LOUIS — Emerson Electric Mfg. Co. has announced a line of a.c. arc welders including four models with maximum capacities of 75, 150, 200, and 300 amperes. Features include:

Inclined selector panel for selection of heats from an erect position; heavy-duty on and off switch on selector panel; drip-proof storage space between selector panel and cabinet front, for accessories; panel cover for protection against dirt and damage; streamline design, with ventilating louvers on top and sides; transformer coils impervious to moisture, grease, acid, etc.

Catalog X3896 describing the line is available from the company.



You wouldn't just order "meat" when you're all set for a juicy steak. You'd probably say "porterhouse," surrounding it with plenty of specifications about that steak and how it's to be prepared. Designers of refrigeration and air conditioning equipment are equally "choosy" in selecting Aluminum Alloys. They know from available Alcoa data, or through their own experience, what to expect of certain alloys. If it's a new job, they may set various alloys to work, exposing them to conditions simulating actual service.

As a starter in building up your data file, you should have the book, "Alcoa Aluminum and its Alloys." It covers this broad field in a concise but comprehensive manner. For a copy, write ALUMINUM COMPANY OF AMERICA, 1975 Gulf Building, Pittsburgh, Pennsylvania.

DEFENSE COMES FIRST

To meet the needs of the National Defense Program, plus the normal demands of peace, a vast expansion of our already greatly increased production capacity is being speeded. When the emergency is past, there will be more Aluminum available than ever before.

Meanwhile, if you can't get all the Aluminum you want when you want it, remember Aluminum is helping you by helping to meet the National emergency.

ALCOA · ALUMINUM

WESTERN U

Send the following message, subject to the terms on back hereof,

ELECTRIC APPLIANCE RETAILERS, U. S. A.

WITH CARLOAD ORDERS FROM RETAILERS
OF A YEAR AGO . . . THE SECOND S
PROGRAM IS ALREADY A PROVED SUCC

What Kelvinator's long-range Program of Planned Distribution and Manufacturing means to the Retailer of Refrigerators and Ranges

THE long-range Kelvinator program, which this year enters its second period, according to schedule, could only have been created by a "retail-minded" organization.

That fact is at one and the same time Kelvinator's most valuable possession and the Kelvinator franchise holders' assurance of continuing and expanding profits.

One by one Kelvinator has faced the problems of refrigerator and range retailers—haphazard step-up pricing—too many retailers—high prices—complacent engineering and product planning—too many models. And, one by one, Kelvinator has sought solutions.

Fortunately for Kelvinator, this "attitude of Mind" is perhaps the one thing in business that cannot be copied.

It helps explain the fact that Kelvinator for nineteen forty-one is, any way you look at it—"the hot line—and the hot franchise".

UNION

...re hereby agreed to

...ETARS MORE THAN DOUBLE THOSE
...D S? IN KELVINATOR'S LONG-RANGE
...LD CCESS . . .

Check These Kelvinator Franchise Advantages Against Any Other

1 EXCLUSIVE EXTRAS . . . No other refrigerator offers the exclusive new Magic Shelf—the Stainless Steel Cold-Ban—the Glass-enclosed Cold-mist Freshener cooled by coils within the walls of the refrigerator. And the 1941 Kelvinator Ranges offer new, exclusive features at the lowest prices in history.

2 STEP-UP PLAN . . . A *logical* step-up plan based on the actual retail *value* of each added feature. The *higher* priced models, in both refrigerators and ranges, are easy to sell.

3 NEW LOW PRICES . . . Last year Kelvinator's new price policy revolutionized the industry. This year, step number two in our long-range program reduces refrigerator and range prices even farther, and greater values have been built into every model in the line.

4 HIGH UNIT SALES . . . Last year the average of 80 per cent of all Kelvinator retailers' sales was $160—which we believe sets an industry record. With this year's amazing step-up plan Kelvinator retailers will again sell an overwhelmingly big per cent of higher-priced refrigerators and ranges.

5 SIZE . . . One of Kelvinator's most important *extras* is size. Six cubic foot refrigerators are now six and three-quarter cubic feet—and eights are eight and three-quarter cubic feet—thanks to Kelvinator's new cabinet construction. And all ranges have big, *oversize* ovens.

6 SELECTIVE MARKETS . . . Kelvinator's 1940 policies, carried forward into 1941, have earned for Kelvinator the reputation of putting into actual practice—"a market for every dealer—a dealer for every market".

7 FEWER MODELS . . . By concentrating on the models people really want, Kelvinator has reduced its refrigerator line to *eight* models—its range line to three—and thus reduced the retailer's investment to a minimum and simplified his selling problem.

8 SERVICE-FREE . . . The Polarsphere Sealed Unit has set a record for reliable performance. Of the hundreds of thousands of Kelvinator refrigerators sold last year, less than one-half of one per cent were returned to the factory for service.

9 REPLACEMENT SALES . . . The new and radically different 1941 Kelvinator Moist Master with its glass shelves and Cold-mist Freshener, offers the most powerful replacement incentive in years. And every 1941 Kelvinator is a *brand new* model. Not one is a relabeled carry-over from 1940.

10 ADVERTISING AND PROMOTION . . . The biggest campaign in Kelvinator's history is already under way with four-color magazine advertising—key city newspaper and transcribed radio spot announcements—new style billboard posters and complete cooperative advertising materials. Selling and product literature is printed in *full-colors*.

11 STOCKING . . . Kelvinator's Redisco Plan for 1941 provides the most flexible and liberal method of stocking refrigerators and ranges you have ever been offered.

12 PLANNED DISTRIBUTION AND MANUFACTURING . . . A long-range program developed by a "retail-minded" organization to help retailers build an increasingly profitable business.

KELVINATOR DIVISION
Nash-Kelvinator Corp., Detroit, Mich.

Get More — Get **KELVINATOR**

AIR CONDITIONING & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office;
Established 1926 and registered as
Electric Refrigeration News

F. M. COCKRELL, *Founder*

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It's Now An Institution

NO longer is there any question about the place of the All-Industry Exhibition in the air conditioning and refrigeration industry. It was a success the first year, a bigger success the second year, and a still bigger success the third.

That word "success" can be measured in terms of number of registrants, in terms of dollar volume or unit volume of sales, and it can be measured in terms of increasingly better relations between competitors and between makers and suppliers.

From any angle you look at it, the Third Annual Refrigeration and Air Conditioning Exhibition, which just closed in Chicago, lived up to the expectations of all who spent good money to show there, or to come there to see the show.

It is now definitely an institution. Directors of Rema have voted to reserve the week of January 12th, 1942, for the Fourth Annual Refrigeration and Air Conditioning Exhibition. War permitting, this show should continue the tradition of topping all others.

Labor Shortage Sure To Come

GENERAL tightening of the labor market, with the supply of available workers in a number of the skilled defense occupations almost exhausted in some localities, is reported by Paul V. McNutt, Federal Security Administrator. What that situation will mean to the air conditioning and refrigeration industry is a matter for conjecture and study.

With more and more defense contracts reaching the production stage, manufacturing centers were busier than they had been since 1929. Non-industrial areas also reported unusual activity as the result of Government construction of military camps and airports.

Other significant trends reported by several State Employment Services include: a general shifting of workers to centers of defense activity; development of housing shortages in communities where there has been a great influx of workers; and some delays in production because of inability to secure needed machinery or raw materials.

Qualified skilled workers have had to be recruited from outside localities on many projects; but many migrant workers do not have the skills required. Where there has been prior clearance of job prospects and labor requirements with local public employment offices, such unfortunate situations have been avoided.

COULD OPERATE MORE SHIFTS IF LABOR AVAILABLE

Many manufacturers have indicated they would operate additional shifts if qualified skilled personnel were available. An increasing number of employers are reported to be hiring or retaining skilled workers who are not presently needed, in order to make certain of having them when the need arises. Even in the semi-skilled and unskilled occupations, the usual large excess of applicants over jobs is rapidly being reduced.

In this connection, reports from all parts of the country indicate that domestic help and farm hands are leaving their usual employment to take unskilled jobs in factories and in construction work.

As a partial off-set to existing and potential labor shortages, vocational training to supply needed workers has been greatly accelerated, and many trainees are being absorbed by industry as semi-skilled workers. Only those trainees with previous work experience who brush up their skills in "refresher" courses are considered available for skilled jobs upon completion of their training.

EMPLOYERS ASSIST IN BIG TRAINING PROGRAMS

In addition, employers are conducting their own training programs and are cooperating with public and private vocational schools by furnishing equipment and voluntary instructors and by planning courses which specifically meet their needs.

As a further means of coping with the problem of limited supplies of skilled labor, employers are hiring semi-skilled workers for training on the job; are using workers in related occupations whenever possible; and are breaking down skilled operations into several less skilled steps with a system of training and upgrading as workers acquire experience on the job.

Although employer requirements covering skill and experience have become more lenient, standards for personal qualifications of workers, especially nationality, remain rigid. The requirement of citizenship is becoming general throughout all industry.

PROSELYTING OF LABOR NOT IN EVIDENCE

Despite the increasing difficulty of securing skilled labor, competition for workers among employers has not yet reached significant proportions. In areas where there are well-established employers' organizations, there are agreements not to pirate workers; but some competition is evident in non-local advertisements for workers to be hired from outside the community. There have also been a few instances of wage increases to keep employes from transferring to other jobs.

To meet housing shortages, reported at a number of points throughout the country where rapid expansion of industrial activity has caused a large influx of workers, low cost housing projects have been planned. For the present, however, lack of living accommodations is a deterrent to further employment in certain areas.

Another deterrent to employment and production expansion, reported in this period for the first time, is inability to obtain machinery and raw materials. Several firms with large orders on hand for such diverse products as electrical equipment and steel products, have been unable to proceed with production because delivery of necessary new equipment or material has been delayed.

They'll Do It Every Time . . . . . By Jimmie Hatlo

THIS POOR GUY WORE OUT THE LINOLEUM IN EVERY EMPLOYMENT AGENCY IN TOWN, BUT HE COULDN'T GET A JOB——
EMPLOYMENT MANAGER
SORRY, DOAKS, THERE'S STILL NOTHING DOING WE'LL LET YOU KNOW IF ANY-THING TURNS UP.
AND THEN HE WAS DRAFTED— THEY'LL DO IT EVERY TIME——
FLATWHEEL TRACTION CO.
Jan. 3. 41
Dear Sir:
Regarding your application for a position, we now have an opening for you in our par dept. at a sala $200.00 per
I.O.U. EMPLOYMENT AGENCY
Jan. 2. 41
Dear Sir:
Please contact us immediatly. We have finally located a splendid job for you starting Monda a salary of $225.
FORWARD TO JOE DOAK Camp Dix

LETTERS

STEWART ON THE ECONOMICS OF BUSINESS

Stewart Ice Machine Co.
1046 E. 22nd St.
Los Angeles, Calif.
Dec. 30, 1940

Dear Mr. Taubeneck:

The week of Oct. 28 to Nov. 4th, last, I spent among the Farmers in Nebraska and the principle topic of conversation was the approaching Presidential election. One farmer told me that he voted for Roosevelt last time, but never again. He said, here I have 160 acres of farm land but Roosevelt wont allow me to farm but 90 acres of it. As a result I haven't raised grain and feed enough for farm animals.

The next day, I met him again and in the run of conversation I asked him how much corn he was getting per acre this year. He said about 15 bushels. Then I asked him what was considered an average crop through there under favorable conditions. He said 60 to 70 bushels but that he had raised as much as 90 bushels. So I asked him what cut his yield this year and he said lack of rain and hot winds just at the time the corn was tossiling. So, I told him that under those conditions I could understand why he could not vote for President Roosevelt.

Now here you come on december 18. with your Editorial "Small business takes the rap." Sure they take the rap, but don't blame "the boys down there in Congress." Put the blame right where it belongs; Big Business Management is the parties responsible for the conditions you complain of. Yeh, I know what you'er thinking.

Now let's look at it this way: There are no Tax trees. There are two things that are sure in this world, that's Taxes and death. If you know of any workable plan whereby the item of taxes can be left out of the price the customer pays for the article he buys, regardless of what that article is, then possible we could expand the idea and leave out the item of material, and of labor. Why not be smart and leave out every thing. That surely ought to make the boys in Congress feel bad.

Under our price and profit system there is no business organization in this nation who pays one red cent of tax. When these dealers you speak of receive a shipment of any article, the price agreed upon has every item of expense of the manufacturer included therein as the proportionate part which each unit must bear in relation to the whole.

The refrigerator dealer receives a shipment from the factory. In the price he pays is the item of taxes which the factory collects. If the dealer could sell with a gross mark-up of 40%, and his volume was what it should be, he could operate without complaint. But he cannot do that, for along comes the manufacturer and ruins the dealers chance by first setting the price on the article, and second, by volume sales at cut-rate prices through department stores and third, by long time financing which the dealer must adhere too with it's contingent liability.

When the manufacturer pays the tax collector; also the dealer, they are simply turning over to the tax collector the money which each knew before he entered business that he would have to do. The money never was eithers. They collected it along with the items of material and labor, over-head and selling expense.

The dealers you speak of are short of tax money because they were forced by the business methods of the manufacturers to chisel down their margin from the price handed them. They did not, however, simply chisel off the portion of tax from the price, they chiseled as much from ever item of expense of their business.

If a firm makes one red cent on business transactions, he made as much on the item of tax as he made on any other item, and likewise, if he lost money on the transaction, he lost as much on every other item of expense represented in the price tag as he lost on tax, for whether you believe it or not, and regardless of the fancy bookkeeping, taxes does not grow on trees, it simply must come from operations. The consumer pays all expense.

While you single out the item of tax as the controling factor in the success or failure of the "Small Business operator," you publish in your issue of december 25th. where one large manufacturing corporation made a profit of $1,505,151.00 on operations. Now if you will kindly examine that article on page one, you will find that what I say above is the facts, for they have deducted for depreciation, AND FEDERAL INCOME TAX.

Your interest in the "Small business organizations" is most commendable, but donot blame "the boys in congress" for their troubles. The boys in Congress is there because they received the majority of the votes of those governed, and there are a lota people who still beleive in majority rule, even though we may be republicans.

M. L. STEWART,
General Manager

WHERE TO LOOK FOR ADDRESSES

1915 Lynn Ave.
Fort Wayne, Ind.

Editor:

Will you please forward to me the address of the Pittsburgh Lectrodryer Corp. I have written them twice but have had no response.

HARRY I. CHAMBERS

Answer: The address of the Pittsburgh Lectrodryer Corp. as listed in the 1941 Refrigeration and Air Conditioning Directory is Box 1766, Pittsburgh, Pa.

N.R.S.J.A. To Put Major Effort on Cost Analysis Survey This Year, Plan To Extend Other Activities

(Continued from Page 1)

paid their dues practically up to date, and are firms that take their membership in the association seriously. Two firms have been elected to membership since the last membership list was printed and there are three applications on hand."

LANGSENKAMP WANTS POSITION STRENGTHENED

"I would like to see this organization in the position of the camera industry," said Mr. Langsenkamp in opening his president's report. "A friend of mine who is pretty adept at securing wholesale discounts endeavored to purchase a camera wholesale. After three months he gave it up as a hopeless job. He was telling this story before a round table group and a prominent merchandiser in town backed up his story with the statement that if his store or any store in town found that a camera was sold wholesale, they would immediately throw out that manufacturer's line."

Pointing out that the association had gained a new secretary, Mr. Langsenkamp said, "I believe you will all concur with me that we have been receiving much more information through the regular monthly bulletins as well as personal contact with the secretary in your regional meetings. I wish to point out that Mr. Hovey is largely responsible for quite a few of the new jobbers' helps that we have started this year.

STANDARDIZED CATALOGS, AND UNIT RATINGS

"Chet Borden will have considerable to tell you in reference to his work on catalog standardization which will mean the saving of many dollars to all of us in assembling our catalogs, a feature that alone will more than pay your association dues. This same Manufacturers Relations Committee has been cooperating with the manufacturers in an attempt to standardize ratings and establish one standard for each manufactured product.

"That is, to enlarge on this, in the case of coils, compressors, and controls, a definite and standard manner for figuring B.t.u. ratings. All of which should enable our salesmen to present a better picture to their prospects.

"The 2% cash discount program has been progressing very nicely under Chairman Borden's jurisdiction and he will be able to give you the facts on the increased number of manufacturers who are now giving either 1 or 2% where formerly they extended no cash discount privilege to our membership.

"Early this year I inaugurated a trade practice and ethics committee," reported Mr. Langsenkamp. "I found, however, that this in most instances was a regional case and not one of national scope. This brings us down to the question of regional associations and their cooperation with the national association.

TRADE PRACTICES OFTEN A REGIONAL PROBLEM

"In the regional problems, items to be considered are price cutting among the members of the national association that affect those in that region. The copper tubing price is not a national question but one that is entirely local, and in most instances has been solved by the regional association, for I believe that prices on copper tubing are not standard in any part of the country.

"The association from a national scope is not interested in setting individual differences with certain manufacturers. It is only concerned when the manufacturer has a sales policy that is detrimental to the jobbers as a whole.

"The paramount project for 1941 is the 'Cost Analysis Survey.' I hope each and everyone of you give this 100% cooperation. This will give us a true picture of the actual overhead of the jobbing industry and will constitute the greatest single benefit to us jobbers as individuals.

"Second important point for consideration is increase of our membership. By that remark I do not intimate that we get every one into our organization that gets a wholesale price on a flare nut, but good, solid, well financed, and seasoned wholesale firms that will follow our line of reasoning and make this an even more active group.

"Third, considerable thought and planning will have to be given to the best possible means of developing a strong relationship between the regional groups and our national association; the regional to handle localized problems and the national to give study and thought to those situations that effect every one of us."

Hovey on Projects

"Of the tangible projects being considered at this time by the officers of the National Refrigeration Supply Jobbers Association," said Mr. Hovey in discussing projects for the association to undertake, "perhaps the most important is that of making a survey of the cost of doing business of refrigeration supply jobbers. Earl Constantine, president of American Trade Association Executives, says:

" 'American industry is conducted on the basis of individual enterprise, compensated with profit. Profit can be realized only by securing a price which contains a margin above the cost of producing and selling the product. Obviously, one may not price his product in a way which assures the compensating factor of profit unless he knows what is the actual cost of making and selling the product.

" 'Out of this fact comes the need for sound cost accounting. There is much room for education along this line in most industries, particularly in those which are not integrated, and which are comprised of many companies of limited experience and limited working capital.'

"Copies of a draft of a survey statement form suggested for use by members of the National Refrigeration Supply Jobbers Association have been mimeographed and will be distributed at this meeting.

"Many trade associations provide in their by-laws for both a national organization and regional organizations and make the regional organizations a definite part of the national organization. In my opinion such an organization is highly desirable. For many purposes all members of a trade of industry throughout the nation should be represented by one organization that can speak with authority for the trade.

"On the other hand, it is highly desirable that those in a distributing trade who are in actual competition with each other should meet together at fairly frequent intervals, more often than national meetings are justifiable. It is only through personal contacts that real friendship can be developed between competitors and unless there is a friendly feeling between competitors, dishonest buyers may often create most unsatisfactory business conditions.

"Believing strongly in both regional and national organizations, I would like to see the members of the association determine what are the logical regions into which the refrigeration supply jobbers of the country should be divided and provide in the by-laws of the association for the creation of regional organizations within such regions.

MAY COMPLETE DATA ON CASH DISCOUNT POLICIES

"The project of getting a uniform 2% cash discount will be carried on and if the members of the association consider it desirable, a compilation will be made of the cash discount terms of all manufacturers in the trade.

"If a logical method of surveying and portraying jobber coverage can be devised, the directors of the association, I believe, will undertake the project.

"A project that has been considered and touched upon in the report of C. E. Borden as chairman of the Manufacturers Relations Committee is that of special catalogs.

"From the viewpoint of their use in selling, catalogs may be divided into two classes, consumer catalogs and distributor salesmen's catalogs.

"Catalogs for the consumer are printed to create a desire on the part of the ultimate buyer to purchase. Such catalogs often use large cuts and heavy paper in order to present most attractively the items which are to be sold. The distributor salesmen's catalog is printed with the idea of giving the distributors' salesmen the necessary information to enable him to properly present the items listed to prospective customers.

LIGHTER CATALOG FOR SALESMEN SUGGESTED

"Such a catalog may contain small illustrations and be printed on very thin paper. It is more of a reminder to the salesman than a presentation to customers. In the surgical trade, with which I am quite familiar, special dealers salesmen's catalog specifications have been adopted that call for a thin paper and a compact form of typography.

"Manufacturers' catalogs following these specifications are about one-sixth as heavy and bulky as catalogs to be placed in the prospective customer's hands listing the same items, but printed in the usual way.

"My contact with the refrigeration supply jobbers has not been sufficiently long to enable me to determine whether or not there is a need for rendering a credit service to members of the National Refrigeration Supply Jobbers Association. Clearly, in some centers such service is being satisfactorily rendered to refrigeration supply jobbers either through their local organizations or through other agencies.

"If the refrigeration supply jobbers who are members of the association are definitely divided into regions it will be found that the association can substantially benefit the members in some regions by compiling for them lists of slow pay debtors. If the members in any region wish such a service undertaken, the work will be gladly done."

Mr. Hovey then outlined to the association some other activities that the association might undertake if there is a real demand for them.

"In discussing the subject of a possible sales manual for the jobber," said Mr. Hovey, "it seems advisable to refer to my experience in the surgical trade. In that trade a great many of the products sold are of a highly technical nature. Among such products are anesthesia apparatus, metabolism apparatus, X-ray machines, electro-medical apparatus, electrically illuminated diagnostic instruments, microscopes, etc.

'MANUALS' FOR SALESMEN A POSSIBLE PROJECT

"Because the products are so technical in construction and operation, it has been the customary belief in the trade that salesmen had to grow up in the trade to properly understand the merchandise sold. Recently, with a greater demand for salesmen, the association decided to prepare a course in salesmanship that would discuss the general theory of selling and then discuss thoroughly each of the major lines of merchandise sold by the surgical dealer.

"While the products sold by refrigeration supply jobbers may be as complicated as any of the lines of products sold by the surgical dealers I believe the lines carried by most refrigeration supply jobbers are not as numerous and that a sales manual for refrigeration supply jobbers' salesmen would be a simpler project than that in the surgical trade. Possibly a sales manual in the refrigeration supply trade might be of great benefit.

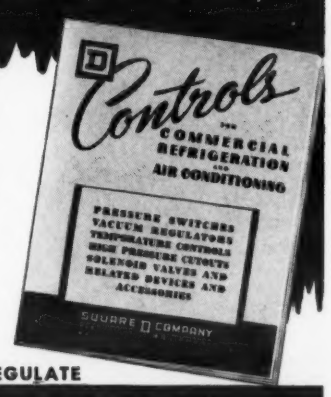
"In his paper on the place of the refrigeration supply jobber in the air conditioning industry, W. C. Allen has related incidents which have convinced him that too many refrigeration supply jobbers are not equipped to render necessary engineering service in connection with sales of refrigeration equipment and supplies.

"Could the association, through a proper committee, one that had among its members men connected with the leading manufacturers of the more technical articles sold by refrigeration supply jobbers, prepare an educational manual for refrigeration supply jobbers that would really be helpful, or is the problem so technical that a course of schooling is absolutely requisite."

SQUARE D IN REFRIGERATION

Send for your Copy of this Controls Catalog

Includes Pressure and Temperature Controls—High Pressure Cutouts—Solenoid Valves and Related Devices. This comprehensive reference catalog will be sent upon request.

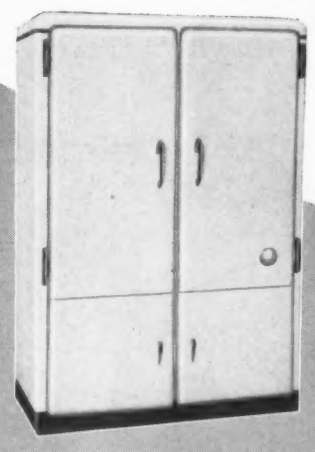


DO IT ALL WITH SQUARE D—SWITCH • PROTECT • REGULATE

Jobber Inquiries Invited

SQUARE D COMPANY
REGULATOR DIVISION
DETROIT · · MICHIGAN

12 TO 71 CU. FT.



MOST COMPLETE 'REACH-IN' LINE ON THE MARKET!

Here's the widest selection of sizes and styles the industry affords—a model for every need. Distinguished by superb styling, fine construction and outstanding value.

Model 120 (above) has 12 cu. ft. capacity—the newest member of the "Midwest 'Reach-in'" family.

Model 700 (right) another new model has 71.5 cu. ft. capacity. In between is a full range of sizes and equipment. Write for full details now.

★ ★

Midwest MFG. COMPANY
Galesburg, Ill., U.S.A.
Export Division, Merchandise Mart, Chicago

For Your Convenience and Profit!

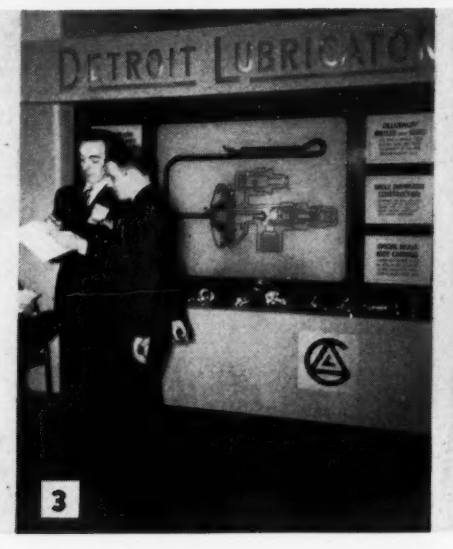
✓ marks the Spot · · · ·

where you can get PROMPT DELIVERY from stocks

DU PONT Artic The Preferred METHYL CHLORIDE for Service Work

DU PONT E. I. DU PONT DE NEMOURS & COMPANY (INC.) · The R. & H. Chemicals Department · Wilmington, Delaware
District Offices: Baltimore, Boston, Charlotte, Chicago, Cleveland, Kansas City, Newark, New York, Philadelphia, Pittsburgh, San Francisco

Morning, Noon, and Night, The All-Industry Show Had Something To Offer



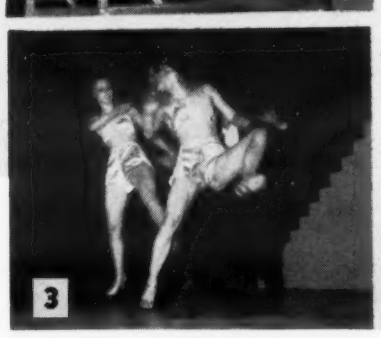
(1) George Poggen of McCord Radiator points out the features of a new condenser made by his company. The "music" in the background was a booth theme.

(2) Three "convention wives" examine a new Temprite instantaneous cooler, while in the foreground Owen Nelson helps out a visitor.

(3) Detroit Lubricator was one of several companies that used large "blown-up" illuminated drawings to tell a product story to the crowd. In this particular case, however, D. J. Gott of Detroit is giving the dope to John F. McKinley of Carrier from a catalog sheet.

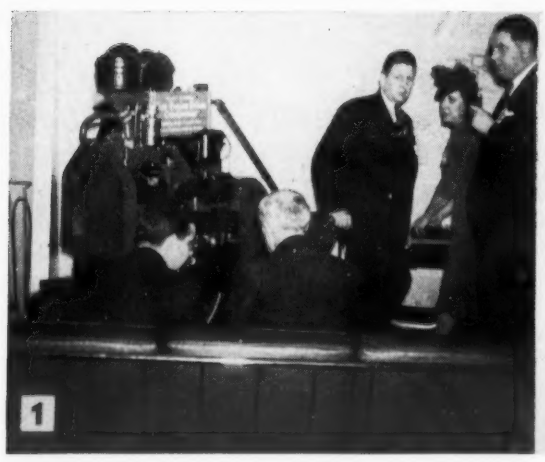
(4) J. M. McNulty of General Electric settles himself down for a discussion with H. W. Weihenmayer of L. H. Gilmer Co.

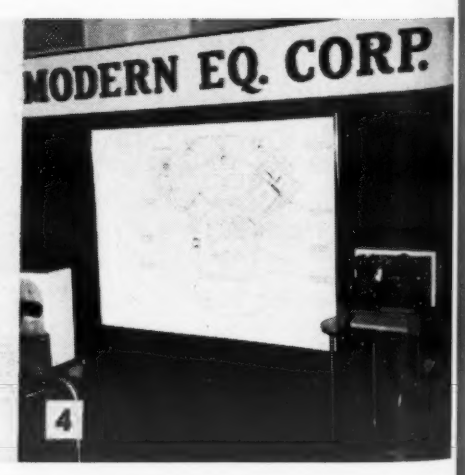
(5) Chief Kiutus Tecumseh autographs a convention program for Marjorie Campbell of Virginia Smelting as "Jerry" Bowen, manufacturers agent in the southwest territory, and Frank Smith, Tecumseh sales manager, looks on. Incidentally, the chief lost some personal mementoes during the show, which he would like back.



(1) "Mel" Knight, general sales manager of Peerless of America, Inc. and chairman of the All-Industry Exhibition, demonstrates the "Diopexis" machine for cold therapy work. (2), (3), and (4) some of the acts at the All-Industry Banquet "caught in the act." (5) Eddie Peabody and his banjo. (6) and (7) The show had everything.

(8) These two singers, who sang grand opera and old familiar classics, were a surprise hit of the giant floor show staged under Mr. Knight's direction. (9) In the Certified Products Co. booth, where a new line of window coolers is on display, we find A. R. Tomson of Chill-Quick Co. and R. W. Burton, Certified Products.





(1) A study of some serious study. Seated are W. S. Adams of the Fairbanks-Morse air conditioning division and Prof. V. G. Venemann, well known authority on refrigeration from Purdue university, discussing the F-M gas engine driven condensing unit. At the far right is J. W. Bostwick, sales manager of the F-M air conditioning division.

(2) At the extreme left R. R. Dunlop, secretary, Ranco, Inc., uses the brand new 1941 Refrigeration & Air Conditioning Directory to get a point of information for some members in the Ranco booth.

(3) Harry Thompson, president of Copeland Refrigeration Corp., presides over his company's booth while chatting with E. G. McCracken, Wagner Electric Co. of Canada.

(4) One of the most effective displays at the show was a large blow-up of an engineering drawing of the design for the Par compressor, made by Modern Equipment Corp. Jim McCallum, NEWS photographer, made a dandy picture of this, but most of the detail got lost when the engraving was made.

This strip might be labeled, "wives and sweethearts at the Show."

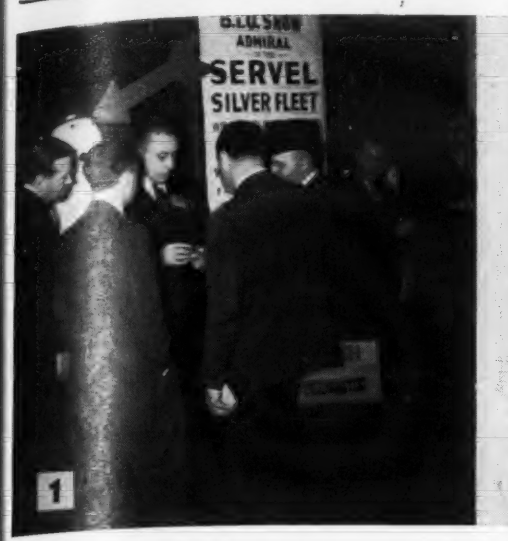
(1) As William Magenau of Dayton Rubber Mfg. Co. talks with M. L. Newman of Grizzle Engineering Co., Chicago, Mrs. Newman is an interested listener also.

(2) J. D. Merkle of Ranco has just made Vee Eberhardt of Detroit and Mrs. Lester Pool of Grand Rapids, Mich. happy by the presentation of a rose from the flowers in Ranco's booth.

(3) C. C. Cook of Air Filter Engineering Co. takes his wife on a tour of the show, and our cameraman caught them as they stopped to watch the controls operate in the Allen-Bradley booth.

(4) Bob Moody of Wolverine Tube Co. was another who brought his wife, and found that she had a genuine interest in the procedings. Here they are with Art Hohmeyer (far right).

(5) Mrs. George K. Lowry asked many questions about the operation of the Westinghouse Precipitron air cleaner as she watched a miniature model work in company with her husband, George K. Lowry, Porter Howe Co., Porter, Ind., and Robert McCoy, Egermann Store Fixture Co., Pittsburgh, Pa.



(1) The "brass hats" work hard at the Show, greeting the trade and closing deals. Witness E. A. "Terry" Terhune, sales manager of the Servel commercial refrigeration and air conditioning division, in the center of this group. Man at the far left is G. B. Tuthill, president, Tuthill Pump Co. Tuthill's exhibit was nearby.

(2) Exhibition guests from the far ends of the country dropped in to see new Spoehrer-Lange products. Left to right: R. V. Duncan, Duncan Supply Co., Indianapolis; A. R. Waite, A. R. Waite Co., Spokane, Wash.; M. G. Haynes, Pacific Factors, San Francisco; H. F. Spoehrer, vice president, Spoehrer-Lange Co.; Charles Grote, Spoehrer-Lange; and George J. Roche, Parks & Hull Co., Baltimore.

(3) Some of the discussions got right down to cases with blueprints, drawings spread out, as is the case in the Deissler Machine Co. booth, where F. P. Deissler, James Spryda, V. G. Deissler, and K. E. Unger do some talking.

(4) Kelvinator engineers H. H. McGeehee, Hugo Hutzel, and G. R. Kingston gang up on N. A. Baker, engineer for the Coldrink Co.

(5) Clustered in the Brunner Mfg. Co. booth were Robert E. Sloas, J. B. Reid, S. W. Hanna, and Edw. B. Waldschmidt, all of Brunner; O. A. Jillson, Frosted Foods Sales Corp. engineer from New York; and J. W. Barnes, Springfield Electric Co., Springfield, Ill.

Air Conditioning Group Streamlines Setup To Speed Up Organization

(Concluded from Page 1, Column 4)

Digest monthly during the coming year from headquarters in New York City. The first issue of this periodical, edited by Brendan Sullivan, appeared at the convention. According to the directors, the Digest will accept no commercial advertising. Arthur F. Callahan of New York City will continue as executive secretary of the association.

First Canadian member of the association is George Hatch, president of the Air Conditioning Engineering Co., Toronto, who attended the association meetings and participated in the general discussion.

An amendment to the association constitution, accepted by vote of the membership, reads "Associate members may be elected to the Board of Directors and have one full vote on that body." This arrangement permits associate members, such as national manufacturers, who have no vote as members of the association, to be represented on the board of directors.

Another amendment to the constitution admits consulting engineers and others engaged in the design of air conditioning systems to full membership in the association. The amendment reads, "Members are those actively engaged in the design, installation, sale, and service of air conditioning equipment and systems and have one vote."

At the present time dues for members of the association are $25 for individual firms and $100 for national associate members (manufacturers). A new classification permits individuals associated with the organizations of members and associate members to join the association at a cost of $10 per year.

90 MEMBERS

According to Mr. Buensod, the association now has approximately 90 members, of which 11 are national manufacturers. A number of new members were secured during the annual convention, he said.

New national associate members reported at the convention included Anemostat Corp. of America, New York City; American Air Filter Co., Louisville, Ky.; and Spoehrer-Lange Co., St. Louis.

In welcoming members of the association to Chicago, Mr. Page stated that the purpose of the association was to "correlate the phases of a growing industry."

"The air conditioning industry is still a little thing," Mr. Page said, "and after all the optimism of past years, the industry has never really 'arrived.' Few concerns in the country are able to live off the industry without other means of income, but the potential is there.

"Our association must teach the public how to buy air conditioning intelligently, and remove the mystery that has surrounded the business. The industry touches so many types of work that the ultimate potential is tremendous."

In an open forum held the second day of the convention, Hal K. Wheeler, president of Air Comfort Corp., Chicago, asked if the association would include firms interested in "merchandising" air conditioning, or only those engaged in a contracting type of business. Mr. Page replied that the association was anxious to accept firms of this type as members, and that one of the functions of the body would be to develop information that would be of value to all firms engaged in selling packaged air conditioning.

H. C. LeVine of Detroit pointed out that impartial information of this type could not now be obtained from any source, and that he thought the association should provide information of this kind.

NO POLICING

Answering a question from the floor concerning the attitude of the association toward the development of "good business practice," Mr. Buensod stated that the association "would not attempt to police the industry."

"We all learn from experience," Mr. Buensod said, "and if we are not good enough salesmen to get the price for our jobs that will keep us all in business, the industry is not growing sensibly.

"The main function of the association is education. . . . I read all the trade magazines and I get a lot out of them. We can all learn a lot about good business practice and what the public wants in air conditioning design through the trade magazines, and through our own NACA Digest."

Nathan Baraban, of Copeland Refrigeration Co., Kansas City, voiced the opinion that the association needed to get recognition from both the manufacturers and from the public. He cited the growth of the large technical societies in air conditioning and refrigeration, the parts manufacturers and the supply jobbers association as examples of what could be done along these lines.

Mr. Cooney cited the experience of the Air Conditioning Council of Western New York in saying, "We found out we could not make money as individuals—we had to do it as a group. For this reason I would like to see the association extended all over the country."

Among others who expressed hope that the association would grow and succeed in its efforts were Arnold Goeltz, president, Kroeschell Engineering Co., Chicago; E. P. Heckel, E. P. Heckel & Associates, consulting engineers, Chicago; and Mr. Hatch.

Mon Wai's Golden Wheel Oriental Restaurant Installs Occidental Air Conditioning

YAKIMA, Wash.—Complete year-around air conditioning has been installed in Mon Wai's Golden Wheel restaurant, where western foods share the menu with Chinese dishes. The Frigidaire system was installed as part of a modernization program which included a red and black Carrara glass and glass brick front.

The interior of Mon Wai's establishment is finished in polished oak, and the modern decorative note extends even to the "Chinese Room" at the rear.

Conditioned air is supplied to the restaurant by a Frigidaire totally enclosed unit powered by a 2-hp. centrifugal fan. This low side contains filters, steam heating coils, and humidifier. Capacity is 6,000 c.f.m., of which 2,200 c.f.m. is outside air. Operation is based on a temperature differential of 15° F.

Cooling is supplied by a 10-hp. Frigidaire compressor. A summer thermostat is connected with a ¾-inch solenoid valve to regulate the flow of Freon to the coils.

Another thermostat, connected with a Barber-Coleman throttling steam valve, regulates the heat during the cooler months. Winter humidification is regulated by a Barber-Coleman hygrostat, which operates a ⅜-inch solenoid water valve. Moisture is provided by a spray type humidifier.

Air distribution is from six grilles spaced along a single large duct running the length of the restaurant ceiling. The duct is finished to harmonize with the walls and furnishings. Three grilles supply the south dining room, two the north, and one the Chinese Room.

The system was installed by the Yakima Hardware Co. under the direction of Jack Saunders.

Air Conditioning For R.C.A.F. Trainees

OTTAWA, Ont., Can.—Air conditioning and refrigeration facilities are being included in new training schools and aerial defense stations of the Royal Canadian Air Force being constructed as part of a British Empire welding together of all air training for the colonies of Canada, Australia, New Zealand, South Africa, Newfoundland, and the West Indies.

Under this plan, training bases are being established at key points throughout the dominion, in addition to the defense patrol and equipment locations of the R.C.A.F. New bases are being built and opened at Moncton, Pennfield, and Chatham, in New Brunswick; Yarmouth, Debert, and Sydney, in Nova Scotia; and Summerside, on Prince Edward Island.

Accommodations for the budding aviators, more elaborate than for the army or navy, include air conditioning (presumably of the winter type) for hangars, repair shops, offices, classrooms, dining rooms, kitchens, shower bath and lavatory rooms, and sleeping quarters. Kitchens are equipped with electric refrigerators.

Robinson Joins Worthington

HARRISON, N. J.—M. P. Robinson, proprietor of the Robinson Filter Co., has joined the Worthington Pump & Machinery Corp. organization to take charge of that corporation's newly organized water purification equipment division. Prior to the establishment of his own water purification company in 1937, Mr. Robinson had, for 17 years, been eastern representative of the International Filter Co. of Chicago.

Air Conditioning Law In Omaha

OMAHA, Neb.—Air conditioning and ventilation will be regulated under an ordinance recently introduced to the city council here, which completely revises the refrigerating and heating sections of the city building code.

Provision has been made for examination and licensing of workers in the lines affected.

Lincoln, Neb. Added 27 Air Conditioning Systems In '40

LINCOLN, Neb.—Twenty-seven air conditioning systems, totaling 270½ hp., were installed in Lincoln during the past year, according to city records. Cost of pipe, fixtures, and connections was given as $13,525. No estimate was given covering the cost of refrigeration equipment.

Four of the installations made during 1940 were connected with the sanitary sewers, 13 with storm sewers, and 10 with lawn sprinklers.

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Packless, leakless, service-free for life.

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The Sylphon Metal Bellows, pioneered by Fulton Sylphon, has been the subject of continuous research and development for more than 35 years.

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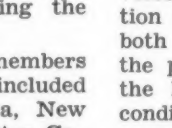


NO CUT

● The corner is cut out of this Ansul advertisement, but there are no corners cut in the production of Ansul refrigerants. Ansul tests and checks at every step right up to the loading platform. And every cylinder of Ansul gases carries its own individual analysis tag—written assurance it is Clean, Pure, Dry.

Agents for Kinetic's "Freon-12"

ANSUL CHEMICAL COMPANY • MARINETTE, WISCONSIN

ANSUL
SULPHUR DIOXIDE
METHYL CHLORIDE

What's Ahead For Manufacturers & Merchandisers of Major Appliances?

Hint of Things To Come In '41 Is Offered At NRDGA Annual Meeting

(Concluded from Page 1)

UPSWING DUE IN REFRIGERATOR PRICES

"By now everybody except Mickey Mouse must know that last year all sales records in the electric refrigeration industry were broken. Two million six hundred thousand **electric** refrigerators were sold, more than were sold in the previous record year of 1937, double the number sold in 1938, and almost 37% more than were sold in 1939.

"The total retail value of all electric refrigerators sold last year, however, exceeded the 1937 figure by only a fraction and was only 23% greater than the value of all electric refrigerators sold in 1939.

"The comparison between '37 and '40 sales of household electric refrigerators is an interesting one. 1940 **sales, in units,** topped 1937 sales by 290,000 units. But 1940 total retail value topped 1937 total retail value by only $190,000 dollars. One way of looking at the situation would be to say that for each electric refrigerator sold last year, in excess of 1937 sales, the industry took from the public only 65 cents.

"I suppose I have a sour disposition and should see a doctor or a psychiatrist. Here I should be elated at the great success of the electric refrigeration industry last year, but I'm not. I take some comfort in the 1940 trend toward larger boxes, it is true. It's nice that 6-foot boxes accounted for almost 80% of the 1940 sales, compared with 60% of 1939 sales.

"But I can't forget that the average retail price of electric refrigerators dropped from $169 in 1939 to $152 last year. This difference of $17 a box, multiplied by the 2,600,000 electric refrigerators sold last year, amounts to over 44 million dollars. I'm convinced that just as many electric refrigerators would have been sold last year, **without** price cuts.

"I could point out that the electric range people had almost as large a percentage increase in units sold as the refrigerator people, with an average retail price reduction of only $7.50, not $17. But perhaps that's specious reasoning.

"Won't you agree, however, that the 1940 refrigerators you sold were far better refrigerators than you sold in '39 representing much better values and that American women might easily have been willing to pay just as much for them?

"1941 refrigeration outlook. Personally, we don't see how the electric refrigeration industry can hope to duplicate in 1941, its 36% unit sales increase in 1940, compared with 1939. It is probable, however, that a 10 or 15% sales increase over 1940 may be achieved. Selling 3,000,000 electric refrigerators in 1941 does not seem too much of a job to an industry that's constantly achieving miracles.

"As to prices, the year starts off again with reductions, as it did last year. The reductions this year affect both the lower and the higher bracket boxes, however. There is disagreement among refrigeration men as to the future course of prices. Our own prediction is that they will have to go up toward the end of the year.

"Last year, at least 25% of all automatic refrigerator sales were replacement sales, even though not all these sales involved a trade-in. The percentage should increase in 1941 to at least 33%. This will increase the trade-in problem.

"One trend in refrigerators, ranges, and washers particularly pleases the McCall organization, because it's a trend we've fostered. This is the trend toward **fewer models and sizes** of these appliances. In October, 1938, we appeared before the National Electrical Manufacturers Association and urged that manufacturers offer a smaller number of models.

"This year there seems to be a definite trend toward fewer sizes and models of ranges, refrigerators, and washers. One refrigerator manufacturer has condensed his line into only eight models, six 6-footers and two 8-footers. Another refrigerator manufacturer has nine less sizes and models in his 1941 than in his 1940 line. Still another range manufacturer is offering only three basic models this year.

600,000 RANGE SALES?

"Both gas and electric ranges broke all time sales records. 1,725,000 gas ranges sold—15% increase over 1939. 450,000 electric ranges sold—34% increase in unit sales. Ratio of gas to electric ranges sold in 1939 was 3.9 gas ranges to 1 electric—in 1940, 3.5 gas ranges sold to 1 electric.

"The electric range people last year set their feet more firmly on the dangerous path being followed by the electric refrigeration industry —the path of accelerated price reductions. Last year, for the first time, saw electric ranges selling for under $100 with many of the features that used to be found only on higher priced models.

"We're not opposed to price reductions. We **are** opposed to an artificial lowering of prices that robs the consumer of values, that robs the retailer of an adequate margin, and robs the manufacturer and distributor of margins for sales promotion, advertising, and development of large, unexploited markets.

"1941 electric range outlook—another 34% increase in units sold. Sales should reach at least 600,000. Prices now lower than last year. Price battle may develop in 'less than $100' brackets. We predict electric range prices, like gas range prices, will have to go up before year is out.

WATER HEATERS

"Storage type electric water heater sales were up 22% in units, 12% in total retail dollar volume, 1940 over 1939. Automatic gas water heaters —unit sales gained 10% in 1940 over previous year. One storage type electric water heater was sold to each four automatic gas water heaters in 1940.

"1941 outlook. Good on both gas and electric water heaters. Can't say how much sales increase. Water heaters, to a greater degree than is true with other major appliances, depend a great deal on public utility promotion. Electric water heater prices should trend downward this year.

CLOTHES WASHERS

"Not the record year, but 1940 unit sales 9% higher than 1939, 1940 total dollar volume up 13%, most encouraging trend for year. Average retail prices up from $68 in 1939 to $71 in 1940. Increase of a little less than $3 a washer impressive when applied to almost a million and a half washers.

"1941 outlook—even higher percentage of increase in units sold—10 to 15%. Sales might reach 2,000,000 washers. Prices higher because of labor and material costs and because of automatic washers. No change in discounts. Specialty selling will be revived by automatics.

"There will be increased national magazine advertising on home laundry equipment in 1941. One manufacturer, for instance, will use three times the advertising space in McCall's Magazine in the first six months of 1941 than he used in the whole year of 1940. One trend of 1940 will continue in 1941, we believe. This is the 'give-the-laundry-glamour' campaign that involves the exhibition of model home laundries.

'PIONEER' ITEMS APT TO FORGE AHEAD

"1941 will not see sales increases in these major home appliances—cleaners, ironers, washers, ranges, and refrigerators—but the year will also see increases in some lesser known and newer appliances," said Mr. Hirose.

"The room cooler is almost a package job that department stores can easily sell and install. The electric dishwasher has had relatively small sales in the past. So has the electric garbage grinder. Yet 1940 was the best year in history for these two products. This year we have something that people have been anticipating for years—an automatic electric dishwasher. We have an electric garbage grinder that will fit 95% of existing sinks.

"It is true that the present market, so far as home retailers are concerned, for electric dishwashers and garbage grinders is small. Yet those merchants who are displaying and pushing complete modern kitchens with range, refrigerator, cabinets, dishwasher, and garbage grinder are finding the venture not only profitable in itself but also as a bait for the sale of individual kitchen appliances and accessories.

"The reasons for expecting greater home appliance sales in 1941 are too well known to merit more than passing mention. Defense expenditures are putting more money into the pockets of the American family. Our national income last year was about 74 billion dollars. It may well increase 13% to 84 billion dollars this year. Fortunately, this added 10 billion dollars will go not only to families whose bread winners had jobs last year but also to families that now, for the first time in years, are assured of a steady income.

"Last year saw the erection of 545,000 homes or dwelling units, the largest number in any year since 1928. New houses mean new markets for home appliances. Defense housing requirements may hamper the number of private homes that would normally be built this year, so that the 1941 increase over 1940 home building may be only slight.

"But even without new home building, we have a greatly increased market for home appliances. All of us, including the Bureau of the Census, have been under-estimating the growth in number of home units during the past 10 years. While in this decade, population has increased 7%, the number of family units or homes has increased 16%.

"What all of us have underestimated is the number of families living together in one home due to the depression, who have now split up and live in separate homes. Last year, most of us estimated that there were 32 million family units in the United States. Actually, according to the census, there were 34 million 700 thousand. Today, there are about 35 million family units in the nation. Almost five million more than in 1930.

"But there are 25½ million electrically wired homes today, an increase of about a million over last year. Expectations are that at least 1¼ million more homes will be wired for electricity this year.

"There are about 17 million homes with gas served from a central plant —an increase of 2.7% over last year. There are some hundreds of thousands of other homes that now have bottled gas.

"That 'if' which may so far affect appliance sales this year as to bring total sales under last year has to do with the effect of the national defense program on appliance production.

"Appliance factories would be affected by the defense program through shortage of materials, shortage of tools, scarcity of labor, or the factory being diverted to the production of defense items.

"Reports collected by us vary on the prospects of shortages in materials going into major household appliances. Some manufacturers have their raw and semi-finished material or fabricated parts requirements covered for the entire year of 1941. Others are in a less fortunate position, with requirements not covered for the full year.

"Aluminum, tin, zinc, and stainless steel especially are a little tight now. Fortunately, the peak manufacturing season for most appliances comes early in the year. Also substitutes can be used for metals—an example is molded plastic agitator in place of the metal agitator now generally used in washing machines.

"Not only have direct and indirect labor charges that go into appliance manufacture increased — in some cases approximately 5%, but there is already a scarcity of labor in some appliance factories. Government owned and operated plants in the vicinity are bidding for skilled labor at higher rates than have been paid during the last several years.

"Appliance manufacturers are naturally resisting as much as possible the necessity of being forced to raise their prices. Not only do they want to cooperate with the government in keeping prices from increasing, but they don't want to jeopardize the appliance market. In fact their wish is to lower prices, wherever possible. But many manufacturers foresee being forced to raise prices this year because of higher costs of material and parts, direct and indirect labor charges, and taxation.

"What happens to industry that not only can, but has, in the past year, produced almost three million automatic refrigerators, over two million new kitchen ranges, over a million and a half vacuum cleaners, and a million and a half clothes washing machines, is of importance not only to the department store field and to all manufacturers, distributors, and retailers of household appliances, not only to the 50 million American women, but to our whole national economy.

"How are 1941 appliance trends likely to affect retailers, especially department stores, in their operations? I'd like to just sketch some points you may want to think about.

"Possibility of appliance shortages indicate making commitments early. Deliveries may be slower. Maintain good inventories only on quality appliances that can be liquidated quickly.

"If material shortages develop, manufacturers will be forced to use substitutes. Some of these new substitutes may result in better quality appliances. But, at any rate, the quality of appliances produced under these conditions may not have the same standards that now prevail.

"Department stores have always been noted for the large number of **appliance lines** they handled. Your critics have said that this practice makes for customer confusion. But might it not be smart, with the possibility of an appliance shortage in mind, to concentrate on fewer manufacturers' lines of each appliance and work up larger sales on each line? Then, as a larger customer of the manufacturer, aren't you likely to get a larger share of his curtailed production than if you spread your business around and were a smaller and less important customer?

PRIVATE BRANDS POSE A PROBLEM

"If your store or a collection of stores takes the entire output of a manufacturer who turns out a private brand, you should be well protected in case of appliance shortages—you'll get merchandise. But if the manufacturer from whom your private brand appliance comes also has his own line of nationally advertised appliances, won't he have a tendency, in the event of a shortage, to supply first the dealers who sell his own national brand?

SPECIALS, CLOSEOUTS, AND OBSOLETE MERCHANDISE

"Won't there be less need for this class of merchandise in a year when consumer income is up as much as it will be in 1941? Wouldn't it be smarter to line up with a reputable and nationally advertised line and make higher unit sales of appliances?

PRICES

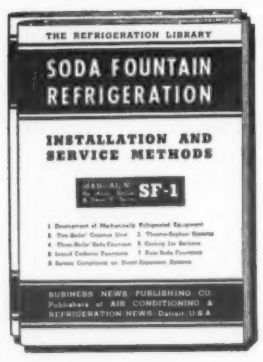
"Manufacturers get purple when department store appliance prices and price desires are mentioned. You're accused of wanting the impossible—bigger margins and lower prices. Price has been your god, other manufacturers say. You don't let the customer buy **up,** others charge. I wouldn't know about these things. All I do know is that in 1941 price will not be the sole buying factor with the public.

"We may even come to the stage when the prospect asks not, 'How cheap can I get it?' but 'Can I get it?' If you agree that appliances should be easier to sell in 1941, shouldn't this reduce the practice of educating the public to expect low and cut prices?

"Some of the manufacturers talk about their appliance lines in terms of the opportunity to sell up, step by step, from the lowest to the highest model in their lines. I'm not so sure that the best approach for the retailer isn't to start right in assuming the prospect wants the highest price appliance on the floor.

"In too many appliance store sales talks we overheard in 1940, the prospect admitted she wanted a new refrigerator. The salesman wormed out of the prospect the information that she owned a box that was 10 years old. So he took her over to a stripped 6-foot job, sold it, and was proud of himself!

"Is it far fetched to think that in 1941 the situation could be changed like this? The prospect comes in and admits she wants a new refrigerator. The salesman finds out that she now has a 10-year-old automatic refrigerator. He goes one step further and finds out her present refrigerator cost her $209. So he walks her past the stripped 6-foot job and takes her to the highest priced job on the floor, and says, 'Let me show you **how much more** $209 will buy in a refrigerator today.' But perhaps, in our naive way, we're suggesting the impossible."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Manual SF-2 Contents: Chapter 9—Bastian-Blessing Fountain with Frigidaire Water Cooler. Chapter 10—Service Complaints and Remedies on Instantaneous Coolers. Chapter 11—Brunswick Fountain with Temprite Instantaneous Cooler. Chapter 12—Accessory Fixtures Multiplexed to Soda Fountains. Chapter 13—Condensing Unit Sizes—Basic Calculation Principles. Chapter 14—Carbonator Construction, Operation, Service Problems. 96 pages. $1.00.

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1-22-41

Operating a Refrigerator Rebuilding Plant

4. Ice Makers—A Use for Old Cabinets

One way to keep old refrigerator cabinets and units in service is to convert them into ice makers, as shown here. Range of sizes to which this particular cabinet can be adapted, and general construction suggestions are given below.

* * *

By Edward M. Siegel,
Associated Refrigerator Plant, Inc.

Shown in the photograph is the ice maker which we have developed in an effort to make use of some of the thousands of cabinets and units which we take in trade every year. This particular item is but one of several items which we have developed to keep from scrapping all the obsolete equipment.

A multiple system cabinet which we are rebuilding, a Frigidaire, cork-lined, porcelain interior box, was especially adaptable for this purpose because six different size coils, as itemized below, will all fit this cabinet.

These ice makers use Fedders coils. All baffles and drain plates are porcelain finished to prevent rusting and to add beauty and finish to the job. This particular ice maker is designed primarily for hospital use, and has medicine storage space below the ice making coils.

The drain plate is so designed that air circulation is controlled and dampened to prevent freezing of the medicines.

We are making these ice makers in the following sizes:

Lbs. Ice Per Freezing	Suggested Unit Size
10	⅕
15	⅕ or ¼
20	¼
25	¼ or ⅓
30	⅓
35	⅓
40	⅓

With the units suggested these ice makers will give four to six freezings a day and have proven very satisfactory to date. Fedders Mfg. Co. is putting out in the near future some descriptive data on this ice maker which will be available to everyone who is interested in them.

General Electric Co. Orders Increase 81% In 1940

SCHENECTADY, N. Y.—Orders received by General Electric Co. during the year 1940 amounted to $654,190,000 compared with $360,748,000 for 1939, an increase of 81%, President Charles E. Wilson announced last week.

Orders covering equipment for national defense purposes amounted to approximately $250,000,000, with the result that the total volume of business in 1940 was greater than that for any other year in the company's history.

In the final quarter of 1940, orders received reached the all-time record three months' total of $256,380,000 compared with $112,166,000 for the same quarter of 1939.

New Air Conditioning Firm Organized In Fort Worth

FORT WAYNE, Ind.—The Lloyd Heating & Air Conditioning, Inc., has just been organized to sell and service all types of air conditioning and heating plants, with offices and plant at 2122 S. Calhoun St.

Principals in the firm include Harry G. Lloyd, president; George A. Dinnen, and Walter G. Doerfler.

CLASSIFIED ADVERTISING

RATES: Fifty words or less in 6-point light-face type only, one insertion, $2.00, additional words, four cents each. Three consecutive insertions, $5.00, additional words ten cents each.

PAYMENT in advance is required for advertising in this column.

REPLIES to advertisements with Box No. should be addressed to Air Conditioning & Refrigeration News, 5229 Cass Ave., Detroit, Mich.

POSITIONS WANTED

AGGRESSIVE Sales Executive Available for Manufacturer of Commercial or Domestic Refrigerators. Fifteen years experience in sales management, sales promotion, organization in above field. Pleasing personality, good habits, hard worker, hired and trained salesmen, appointed dealers over entire United States. Splendid results. Can furnish best references as to integrity and ability. Box No. 1295, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

DIRECT FACTORY Connection—Sell Refrigerator Display Cases, Walk-In Coolers, Reach-In Refrigerators, Refrigerating Units, to Meat Markets, Grocers, Taverns, etc. Financing arrangements to help sell. Write for full information, or see DEPT. A, EHRLICH REFRIGERATOR MFG. CO., St. Joseph, Mo.

SEND FOR PRICES and literature on the General 1941 all streamlined refrigerator display case line. Over 40 years experience manufacturing good commercial refrigerators. On a comparative price test with other makes of equal specifications, prices are lowest in the country. GENERAL REFRIGERATOR & STORE FIXTURE CO., 5th & Bainbridge Sts., Philadelphia, Pa.

ROYAL'S SENSATIONAL new beer wall display and storage cabinet will be made available to a limited number of established commercial refrigeration dealers. The cheapest per bottle dry storage and display unit on the market holds from fifty-six to 110 cases, in five to ten-foot lengths. Completely porcelain finish, inside and out, fluorescent interior lighting. Write for full details on this high quality specialty item. ROYAL STORE FIXTURE COMPANY, 847-49 N. Broad St., Philadelphia, Pa.

BUSINESS OPPORTUNITIES

FOR SALE—Well established and widely known commercial sales and service business in a prominent Northwest city. Fully equipped and large stock. Will require cash if not financially responsible. For additional information write Box 1296, Air Conditioning & Refrigeration News.

FOR SALE—A well established and profitable refrigeration and appliance service business. For full information write DIXON REFRIGERATION SERVICE, Vandergrift, Pa.

EQUIPMENT WANTED

WANTED—50 cycle motors—⅛ to 10 horse power, new or used. Condensing units—⅛ to 10 horse power, with or without 50 cycle motors. State quantity, make, model, age, condition, and price F.O.B. your city. Box 1294, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

A CLOSE OUT of air conditioning cabinets less refrigeration equipment. Three sizes. Sizes to be mailed on request. Each cabinet is new and crated. Small size cabinet for ⅓ h.p. installation, price $11.00. Medium size was made for use with ¾ h.p. installation, $16.00. Large size for 1½ h.p., $21.00. Each Cabinet contains the following: a Westinghouse motor and 12" fan also a filter. Larger cabinets also have a set of casters and an Ionizer. Above cabinets can be used for remote air conditioning installations. All prices F.O.B. Cleveland, Ohio. Box 1289, Air Conditioning & Refrigeration News.

REAL BARGAINS in "as-is" commercial refrigeration compressors. All sizes and of varied manufacturers, mostly Frigidaires. Must dispose of same quickly—can be purchased with or without motors. S. J. O'BRIEN SALES CORP., 124 W. 124th St., New York, N. Y.

REPAIR SERVICE

HERMETIC REBUILDING and Exchange Service General Electric—Westinghouse—Majestic and Grunow Units, Compressors and parts. Immediate shipment. Old unit can be returned later in our crate. We also exchange floats, Evaporators, Controls. Write for price list specify S6. SERVICE PARTS CO., 1101-03 N. 24th Ave., Melrose Park, Ill.

SAVE YOUR Trade-Ins—General Electric, Grunow, Westinghouse, Crosley, Servel, Gibson, Bohn Hermetic, etc. Complete Renovating Service, Respraying. Use our Ovens for Dehydrating. Compressors Rebuilt or Exchanged. Controls, Parts (The Hard ones to get). REFRIGERATOR SERVICE CORP., Minneapolis, Minn. Write for circular.

CONTROL REPAIR Service. Domestic controls reconditioned equal to new at a small cost. All work guaranteed for one year. Prices upon request. UNITED SPEEDOMETER REPAIR CO., INC., 342 West 70th Street, New York City.

CONTROL REPAIR service. Your controls repaired by expert mechanics, with special precision equipment. Supervised by graduate engineers. We stress perfection and dependability before price. One year guarantee on domestic controls. Any bellows operated device repaired. HALECTRIC LABORATORY, 1793 Lakeview Road, Cleveland, Ohio.

PATENTS

HAVE YOUR patent work done by a specialist. I have had more than 25 years' experience in refrigeration engineering. Prompt searches and reports. Reasonable fees. H. R. VAN DEVENTER (ASRE), Patent Attorney, 342 Madison Avenue, New York City.

Wisconsin Dealers Join 'Tuff Guys' Club

SHEBOYGAN, Wis. — Westinghouse dealers and salesmen from Sheboygan, Sheboygan Falls, Cleveland, Plymouth, Fond du Lac, Manitowoc, Green Bay, and Port Washington met recently at Mullen's Service Store here to be initiated into the "Tuff Guys" electric range cookery club. Miss Mable Hildebrandt, Mansfield, Ohio, assisted by Walter Brennen and Jesse Kaiser, conducted the tests.

ALCO Specify ALCO Engineered Refrigerant Controls for Maximum Performance
ALCO VALVE CO. ST. LOUIS, MO.

GALE COMPRESSORS
Single and twin cylinder units. Engineered and manufactured to highest standards. Write
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COMPLETE LINE
of White-Rodgers Refrigeration Controls will solve your refrigeration and air conditioning problems. Write for condensed catalog.
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1211 Cass Ave., St. Louis

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Valves and Fittings
The Standard of the Industry
Kerotest Manufacturing Co.
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THE MAN YOU NEED!
Call on U.E.I. for TRAINED MEN—installation and service men to this industry. U.E.I. graduates are trained as you want them trained for all positions requiring technical knowledge or mechanical ability. Our Free Employment Service is nationwide, personal, prompt. Try it.
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Belden & Wayne Aves. Est. 1927 Chicago, Illinois

National Lock Co.,
Rockford, Illinois
Manufacturers of
Commercial and Domestic
REFRIGERATOR HARDWARE

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Sherer's BIG PROFIT LINE!
ARISTOBAR pays its own way . . . increases profit margin, reduces cooling costs. Replaces messy wet bath with dry cold . . . colorful linoleum covering and stainless steel trim . . . other attractive features. Will pay YOUR way with profit on every sale . . . with increased compressor volume.
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SHERER-GILLETT CO., MARSHALL MICHIGAN
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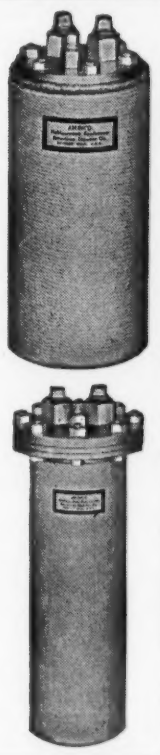
INSURE AGAINST BURNED-OUT BEARINGS!
When the lubricating oil, free from hard carbon and wax, is returned to the compressor crankcase, the danger from burned-out bearings is largely eliminated.
An Aminco Oil Separator AUTOMATICALLY separates the oil which becomes mixed with the refrigerant gases and returns it to the crankcase, to do its full duty, that of lubricating compressor bearings.
The electrically welded steel shells of Aminco Oil Separators withstand high pressures without breakage or deformity. Each shell is insulated to avoid condensation and to maintain high pressures.
Sizes range from ¼ to 120 ton capacity. Send for full information regarding the correct usage of oil separators to save service troubles.
AMERICAN INJECTOR CO.
Pacific Coast—Van D. Clothier, 1015 E. 16th, Los Angeles
Export: Borg-Warner International Corp.,
310 S. Michigan Ave., Chicago, Ill.



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This exclusive MINNEAPOLIS-HONEYWELL feature enables you to change either the ON or OFF pressure without effecting the other
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MINNEAPOLIS HONEYWELL REGULATOR COMPANY
REFRIGERATION Control

NEW!
RANCO TYPE O CONTROL
BIG PERFORMANCE!
WIDE ADAPTABILITY!
SENSATIONAL SIMPLICITY!
Ask your Ranco Jobber.
COMMERCIAL CONTROL
Ranco INC., COLUMBUS, OHIO, U.S.A.

SPORLAN VALVES

Dealers Wanted for Midwestern and Southern States
CAMPBELL REFRIGERATOR CO.
Milwaukee, Wis.

Specify PENN
Automatic Controls and Switches For Recognized Reliability
Write for Catalog
PENN ELECTRIC SWITCH CO.
GOSHEN, INDIANA

Weisheit Is Promoted By Auburn Central Corp.

AUBURN, Ind.—E. Roy Weisheit, for the past two years sales manager of Auburn Central Mfg. Corp., has been appointed assistant general manager of the organization.

Eric Johnson, vice president and general manager, in announcing this change emphasized the fact that it is a company policy to promote men from within the organization to the top executive positions. Mr. Weisheit in his 20 years with the corporation and its predecessors had served as pattern-room foreman, tool engineer, chief resident engineer and sales engineer before becoming sales manager.

Mr. Weisheit is an associate member of the American Society of Refrigeration Engineers.

Operating and Service Methods For Dry-Expansion Counter Freezers

By Arch Black and Dean C. Seitz

Editor's Note: This is one of a series of articles on the servicing of counter-type ice cream freezers, which have been appearing in the issues of AIR CONDITIONING & REFRIGERATION NEWS in the past few months. It will form one section of a general series on the servicing of low temperature equipment.

Construction and Circuits Of Taylor 'Freez-Master'

Fig. 20 illustrates the Taylor Freez-Master, which is a self-contained unit consisting of a 6-quart horizontal freezer for freezing and storing frozen products, a refrigerated mix compartment for storing unfrozen products, and a ½-hp. air-cooled condensing unit.

CONSTRUCTION

The freezer shell assembly is encased in an insulated jacket, permanently sealing it against air and moisture. The door which fits the lapped surface of the shell is held in position by what is termed a "Tite Quick Clamp Bar." Also part of this door is the "Ezy-Pour Filler," valve opening and front beater bearing. The door may be moved by drawing out the two-clamp bar pin.

The "Draw-Flex" valve consists of a valve-head, valve handle, and closing spring, held at the valve opening by a threaded knurled cap. The valve may be removed by unscrewing the knurled cap and drawing the complete assembly straight out.

The mix compartment coil is sealed to the rear wall, leaving the inside clear of all obstructions and the compartment itself is insulated with cork and encased in metal. The beater drive shaft extends through a removable cork ring and a bearing at the rear of the shell to the gear. This gear is belt-driven by a ¼-hp. beater motor. The entire gear unit may be removed by withdrawing the three bolts holding it to the rear of the shell.

REFRIGERANT AND ELECTRICAL CIRCUIT

Fig. 21 gives an outline of the refrigerant and electrical circuit. Standard refrigerant is "Freon-12," but units are also available with methyl chloride.

In the system there are two automatic expansion valves, one which regulates the supply of refrigerant to the freezer itself, which is so arranged that the walls operate flooded while back of the shell dries the refrigerant before it enters the suction line. The other automatic expansion valve is connected to the mix compartment coil and regulates the supply of refrigerant to it.

From Fig. 21 it will be noted that there are two solenoid valves, one for the freezer and the other for the mix compartment. The freezer solenoid valve is operated by a timer and controls the flow of refrigerant to the expansion valve and freezer shell. The mix compartment solenoid valve is operated by a thermostat.

ELECTRICAL CIRCUIT

Operation of the compressor motor is controlled by the pressure switch only, while operation of the mix compartment solenoid valve is controlled by a thermostat. This latter circuit is connected to the supply line at the terminal box between the solenoid valve.

One side of the supply line is connected to No. 3 of the timer terminal board (see Fig. 21), and this terminal is connected directly to the beater motor, the freezer solenoid valve, and the timer-clock motor. The other side of the supply line is connected to No. 2 of the terminal control board and is wired to the clock motor only. The beater motor is also connected to terminal No. 4, and current to No. 2 terminal is supplied to the beater motor either through the beater motor switch (see Fig. 20) or through the rear mercury tube (see Fig. 22), which are both connected between terminals Nos. 2 and 4. The freezer solenoid valve is connected to terminal No. 1 and current from terminal No. 2 is supplied to the valve only through the front mercury tube connected between the 2 and 1. (See Fig. 22 in next week's issue.)

Fig. 20—Details of the Taylor 'Freez-Master'

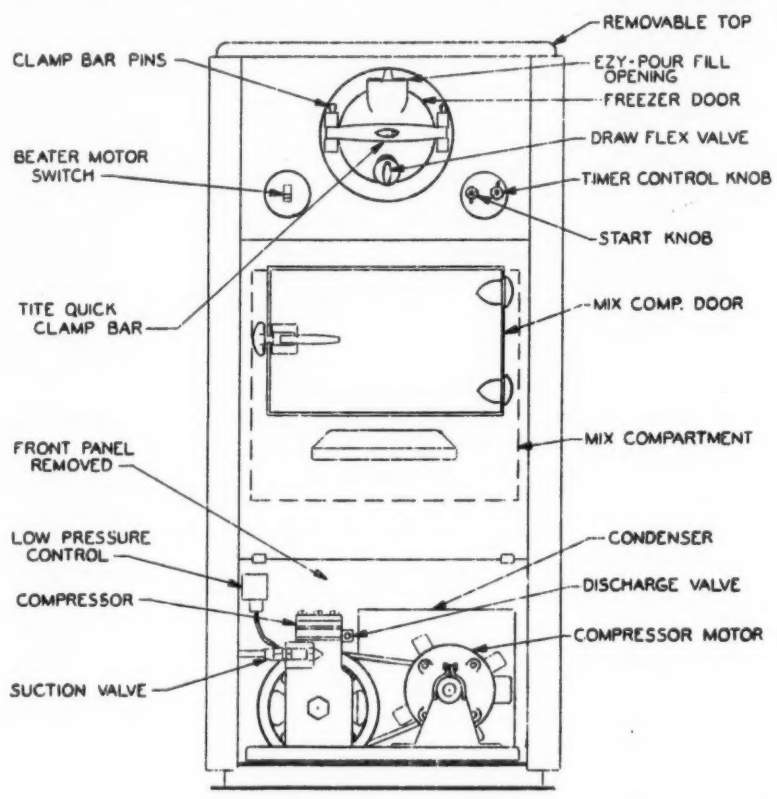
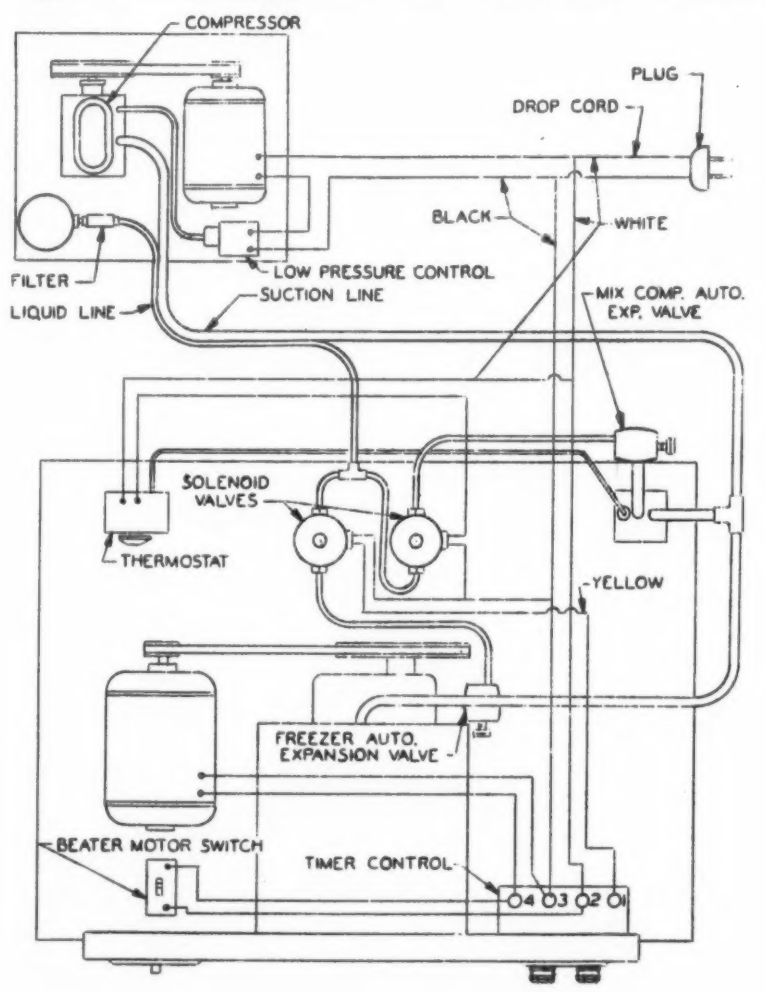
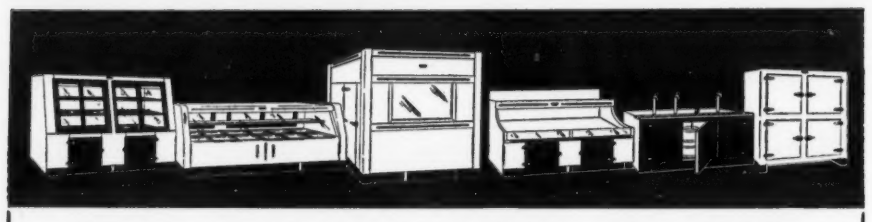


Fig. 21—Refrigerant and Electrical Circuits





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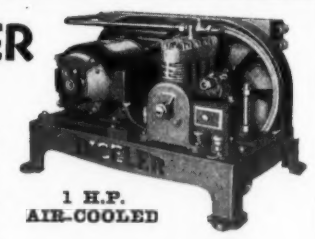

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ACME INDUSTRIES, INC.
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have the call. Many unusual advantages including the new convertible.
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Specify DRYERS THAT BEAR THIS LABEL
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commercial compressors
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A complete line in all sizes

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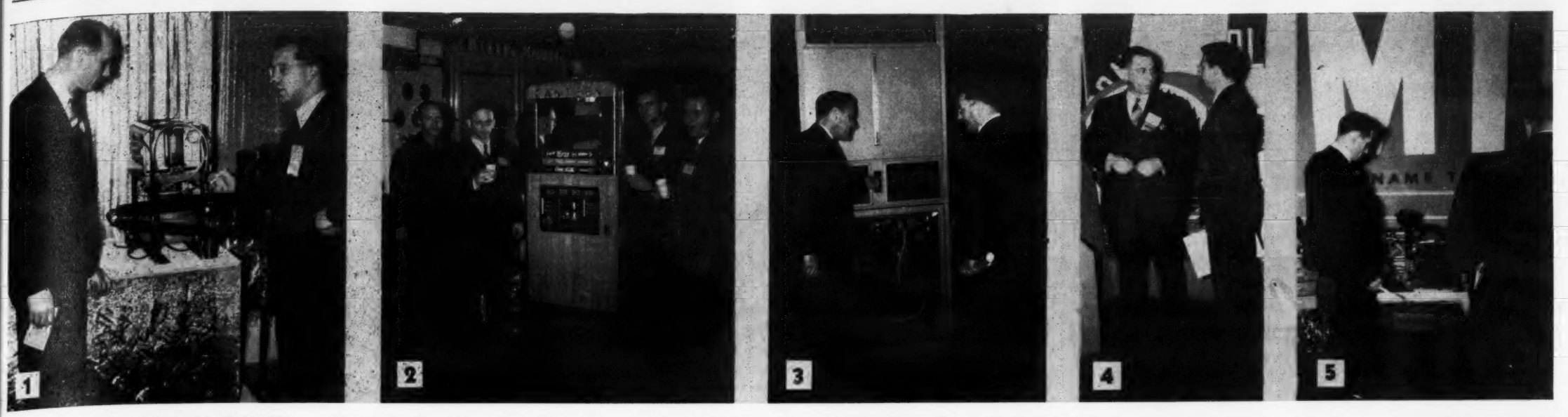

(1) Raymond S. Bagneski, Malleable Iron Range Co., Beaver Dam, Wis., listens attentively as Phil Sidell, the engineer who developed it, explains the new Gale condensing unit.

(2) Three Floridans who left their sun-blessed homes to see the new products at the All-Industry Show try a drink from the self-contained Canteen carbonated drink-by-the-cup dispenser. Left to right are: canteen boy; John C. Gravers, Berner-Pease Co., Miami; Vernon Petty, Bowen Refrigeration Supply Co., Tampa, Fla.; Buck Rogers, Bowen Co., Jacksonville.

(3) H. C. Morrison, Curtis Refrigerating Machine Co. salesmanager, demonstrates a new store conditioner for A. E. Stuckert, Louisville Refrigeration Co.; (4) C. A. MacArthur of Bush Mfg. Co. tells Will C. Matthews, Armour & Co. engineer, about the new Bush coils with plastic baffles.

(5) A study in concentration, as R. M. Gilman, New Castle, Pa. dealer, studies a brand new Mills condensing unit.

What's New---from the Show

Manual Solenoid Is Detroit Lubricator Feature

New Detroit Lubricator items on display included a manually operated solenoid said to facilitate handling in case of coil burnout, and a refrigerant distributor for multiple coil systems. Lighted diagrams of some of the company's products formed part of the booth's background.

Lipman Shows Compressors, Air Conditioning Units

Compressors and air conditioning units built under one of the oldest names in refrigeration—"Lipman"—were shown by the General Refrigeration division of Yates-American Machine Co. of Beloit, Wis.

Self-contained store cooling units in 2, 3, and 5-ton capacity were displayed, as well as the 5 and 10-ton remote self-contained units, for use with duct systems.

'Recommendation Chart' Given Out by Texaco

The Texaco line of Capella oils for use with refrigeration and air conditioning systems was featured at the Texaco company booth. Visitors at the booth received copies of a "recommendation chart" showing the type of Capella oil best suited to all makes of refrigeration and air conditioning units.

Justrite Displays Leak Detectors

When a leak develops in a refrigeration system, nothing is more important to the service man or supervising engineer than a means of finding where the refrigerant is escaping. Justrite Mfg. Co. of Chicago displayed leak detectors for all types of refrigerants.

Michiana Humidifier Makes Its Debut

A new humidifier, known as the "Healthifier" was shown for the first time by the Michiana Products Co. of Michigan City, Ind. Completely self-contained, the unit evaporates water from special sections of toweling wetted through holes drilled in the frame which holds the fabric.

Acme's Condensers Use 'All-In One' Tubing

While Acme Industries, Inc. had no really new products on display, the shell-and-tube "Freon" condensers which it showed featured a new development—the use of "all-in-one" tubing. This tubing, in which the fins are an integral part of the tube wall body, is said to increase tube surface approximately 200% and to eliminate all objections to the old style of finned tubing previously used in this application. The tubes in the Acme condensers are readily removable for cleaning, and can be removed if necessary.

Weatherhead Spotlights Its Packless Valve

A large exhibit of valves, fittings, and accessories by the Weatherhead Co. featured the Weatherhead packless valve. An illuminated, cut-away drawing of the new valve illustrated its operation to engineers and service men visiting the booth.

Harry Alter 'Humidome' On Display

The "Humidome" humidifier, which is now seen on the display floors of many refrigeration and air conditioning dealers, was exhibited by the Harry Alter Co. of Chicago. The Alter organization is also marketing a new fan-filter window unit to sell for $29.95 retail, and a small deodorizer, known as the "Air-Brite" which will sell for $19.95 complete.

The new deodorizer, which has its own fan, comes complete with an activated carbon cartridge 13 inches high by 12 inches in diameter, which may be replaced at a cost of $5.

Nevinger Exhibits Store, Room Coolers

Nevinger Mfg. Co. of Greenville, Ill. exhibited a self-contained store cooling unit, built in 3, 5, 7½, and 10-ton capacities, but also manufactures window-type room coolers in ⅓ and ½-ton sizes as well as a 1-ton console model.

Westinghouse Stars The 'Precipitron'

Stellar attraction in the Westinghouse Electric & Mfg. Co. exhibit was the company's "Precipitron" electrostatic air cleaner. Also on display was the "De-Ion" arc quencher, and a wide variety of motors and motor parts.

New Controls, Starter Are Penn Switch Features

Penn Electric Switch featured its new line of controls, which have a calibrated scale to permit easy settings for any desired conditions.

Another new item was a combination line starter with a dual control feature.

On display were new heavy-duty room thermostats, housed in an attractive, styled case, with a red nameplate.

Large size solenoids (up to ¾ of an inch) were also new in the Penn line this year.

For Information on Motors FOR ALL TYPES OF Air Conditioning and Refrigeration Equipment WRITE TO
Wagner Electric Corporation
6441 PLYMOUTH AVE ST. LOUIS MO

USE McQUAY COILS WITH THE HIGH CONDUCTIVITY "FRICTION-GRIP" BOND
McQuay INC. MINNEAPOLIS, MINN.

U. S. GOVERNMENT Specification
Filtrine
Cafeteria Coolers
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Dayton V-BELTS
Silent, vibrationless, dependable, long-lasting. Powerful grip prevents slippage. A nearby distributor carries a complete stock for appliances and machines.
THE DAYTON RUBBER MFG. CO., DAYTON, OHIO
World's Largest Manufacturer of V-Belts

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TRIPLE TROUGH COOLERS (Coil Plus Baffle)
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Fulco ADJUSTABLE REFRIGERATOR COVERS
Fit any refrigerator. Excellent quality covering, well padded and reinforced at edges. Reduce loss from damage in transit to a minimum by full equipment with FULCO refrigerator covers.
FULTON BAG & COTTON MILLS
Manufacturers since 1870
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Tested Approved
A spacious new walk-in cooler that operates at a lower cost than was ever before thought possible. Every day a Koch Econ-O-Cooler will cut down overhead and expenses. It has greater capacity, longer life, and more efficient refrigeration.
The Econ-O-Cooler is only one of a number of standard Koch products. There are 108 standard models in the vast Koch line, including display cases, coolers, vegetable cases, and refrigerators for meats, bottled goods, flowers, bakery items, dairy products, etc. There is a Koch product to fill every need.
THE NEW Econ-O-COOLER
There are more than 3500 sales representatives who profitably sell the Koch line. Yet many attractive territories are still open to aggressive sales organizations. Write today for full particulars and prices.
KOCH REFRIGERATORS
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TIE UP WITH US FOR REFRIGERATION AND AIR CONDITIONING PARTS AND SUPPLIES!
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Reporters' Ramblings

Tag Ends From the Chicago Show Notebook

By the Staff, Air Conditioning & Refrigeration News

HOW IT CAME TO BE THAT 'BILL' KEEFE WAS REPRIEVED

The widely advertised "execution" of Bill Keefe of Fedders Mfg. Co. (in the form of a "decapitation" to be done by George Hensch, Northern Indiana Brass Co.'s amateur magician) failed to come off. And the reason why it didn't take place provides an interesting insight into how hotel employes probably feel about the whole matter of conventions.

The "decapitation" was scheduled to take place about 1 a.m. one morning, and about that hour George called up room service to get some of his props.

"I'd like to have a head of cabbage, a large butcher knife, a tablecloth, and—" began George.

"Listen, mister," broke in a wearied voice at the other end of the wire, "I ask you now, as man to man, ain't this a helluva time to start playing games?" With that there was a click, and Bill Keefe drew a permanent reprieve.

THE CHIEF WOULD LIKE HIS TREASURES RETURNED

Someone during the course of the Show picked up some mementoes much valued by Chief Kiutus Tecumseh, the Indian chief who was in The Tecumseh Products Co. booth. These included a picture of the chief with Henry Ford, a telegram from Eleanor Roosevelt, etc., and are valueless but much treasured by the chief. The person who took these items can return them through AIR CONDITIONING & REFRIGERATION NEWS, no questions asked.

'DAMYANKEES' BLOOD CURDLED

Late diners and early evening drinkers filled the Oak Room, main bar in the Stevens hotel, with the usual hubble-bubble of their conversation, intermingled with the sounds of drinks being mixed and served.

Suddenly from the bar came a blood curdling, eerie, hoarse-throated scream, starting slowly, gathering momentum and pitch, and ending in a "yee-owie."

The conversation stopped as though cut off from a broadcasting station's control room, bartenders stopped with drinks half-mixed, and for a second you could have tested a compressor motor for noise in the Oak Room.

Then the man from whom the sound had emitted turned back to his drink, there was a nervous laugh from the crowd, and the conversation appeared to pick up right where it had left off.

All that had happened was that someone had challenged Henry V. Dick's ability to produce a genuine "rebel yell," and the Carolinian had taken up the challenge.

TEXANS MOST LOYAL

We were a little disappointed at the feeble rebel yell given when the band played "Dixie" at the All-Industry Banquet. However, when the band played "The Eyes of Texas" the boys from the Lone Star State were up on their chairs waving their napkins around their heads like lariats, which we think is the most colorful and identifying of all methods of expressing loyalty to a state or a section of the country.

JOE PARKER TALKS 'TURKEY'

It's hard to put anything over on those southern boys without winding up behind the eight-ball yourself. Take the dark-haired, dark-eyed lady who was bemusing herself in the Oak Room one night by making off that Turkish was the only language that she understood.

Among those in the group of refrigeration men whom she met was Joe Parker, manufacturers agent in Georgia. After he had watched her go through with her act for a while, Joe cocked his head to one side, looked at her, and said:

"Lady, you remind me of a story—and even though you can't understand English I'm a-goin to tell it to you.

"A barber shop hired a new shoeshine boy, and one of the customers, upon noting this, thought he'd have some fun with the colored boy, so he arranged with the barbers to be treated as though he were deaf.

"So when the shoeshine boy approached him to find out if he wanted a shine, he acted as though he couldn't understand him, whereupon the barbers told the boy that the customer was deaf.

"As the boy started to move away with his kit, he turned, looked at the customer, and remarked: 'That deaf — is sure one big — — — —, isn't he?' "

The "Turkish" lady's face was quite a study.

ANYBODY KNOW WHERE OCTOPUS STEAK IS SERVED?

A. E. Stuckert, who operates the Louisville Refrigeration Co., dealer for Curtis equipment and installation contractor, is a gourmet, and we doubt if there are many citizens of Chicago that know more about eating places that serve strange and exotic or native foods in their city than does this citizen of Louisville.

With a fluent command of the French, German, Spanish, and Flemish tongues, Mr. Stuckert commands instant attention in a restaurant that specializes in any European foods, and consequently when you go to dine with him you can be sure of getting the real McCoy in strange foodstuffs, if you have an adventuresome palate.

And while he says that Kentucky bourbon whiskey (which he enjoys) has somewhat ruined a once fine taste he had for wines, he still knows his beverages. For example, anyone who can order a Zwetschgenwasser cordial—and get it, has our respect. (It's really distilled prune juice, and very good, too).

But there is one rare dish that Mr. Stuckert can't seem to get. He inquires about it everywhere he goes, but no one has ever been able to serve it to him. And he has heard (although it seems hard to believe) that it is a most delicious dish.

It is called octopus steak, and if any of the readers know where it can be obtained, Mr. Stuckert would like to hear from you.

OUR RATE ISN'T QUITE THAT HIGH

Maybe we ought to sign up Austin Ford, engineer of the Jarvis Engineering Co. of Boston, for our writing staff. During the banquet he was outlining some refrigeration principles on the banquet program for Fred B. Hovey, executive secretary of the N.R.S.J.A. When he got through, a kibitzer who had been watching, said:

"I'll give you $10 for that program. That's the clearest explanation of that subject I ever saw."

THE WINNERS—FOR CASH

Just so you won't stay awake nights wondering if you won, we'll give you the winners in two prize guessing contests conducted at the Show.

E. G. Benton of Greusel Distributing Co., Milwaukee, won the Servel snowman contest. He guessed the wattage would be 55,800, and it was actually 55,547.

Edw. J. Dettling of the Green Diamond Electric Co., Chicago, won the Wagner Electric Corp. motor brushes contest, and he had to be good to do it. His guess was 6932, the actual count was 6935, and second place went to Roy Sanders of the A.A.A.C. Refrigeration Co. of Chicago who guessed 6940.

ZICCARELLI GETS HIS EXERCISE THE HARD WAY

A. H. and F. A. Eustis, the twin brothers who head Virginia Smelting Co., attended the All-Industry Show for the first time, and took part in all of the doings. Mr. A. H. Eustis was considerably intrigued by the acrobatic act in the All-Industry Banquet floor show in which a man and a girl did flips and turns from a raised spring netting, and if it had not been such a public place, he confessed that he might have been tempted to do a little jumping on it himself. He probably would have made a considerably better showing than Marsh Corp.'s 250-pound F. J. Ziccarelli, who was willing, but who just wouldn't bounce.

Mr. Ziccarelli, we are told, got his exercise the next night, however, when he locked himself out on a fire escape on the 17th floor and shiveringly made his way to the ground.

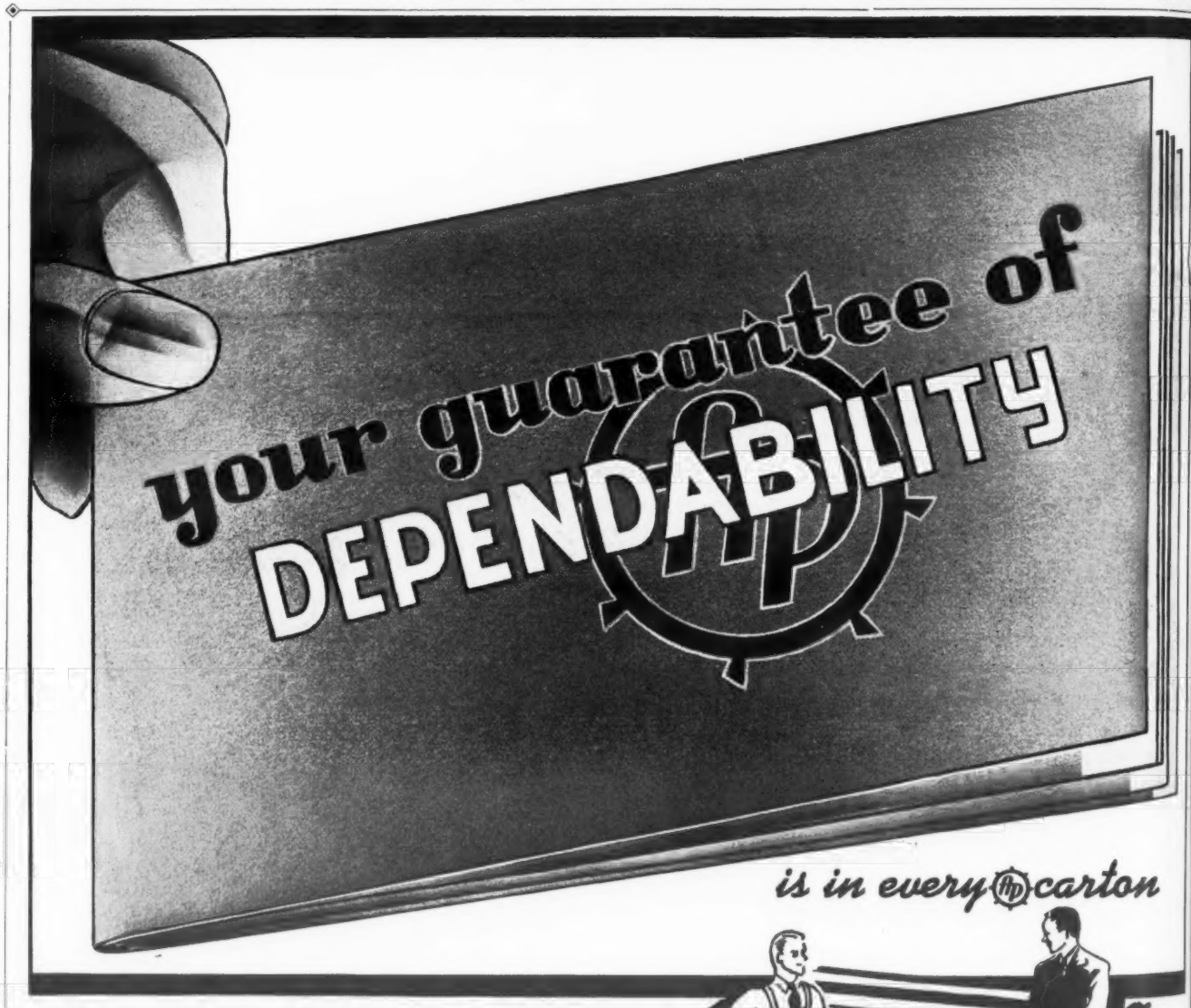
'SANDY' CLAIMS A RECORD

Clarence F. "Sandy" Pratt of the California Refrigerator Co. claims the traveling record for any one company coming to the Show. "Sandy" claims that he, Jess Rauch, and Lem Branson would have traveled a total of 12,000 miles by the time they had returned.

"Sandy" again brought some baby redwoods with him to give to various members of the trade, and swears that the Christmas trees used as "official" decorations at the Show were grown from baby redwoods which he had sent "Mel" Knight.

Personalities at the Show

Enjoying themselves at the "Rodeo Party" staged by the R.S.E.S. are: (1) Leo Freitas, Dallas, Tex.; Mrs. Marc Shantz; Mrs. Al McMahon, wife of the national service manager of Bastian-Blessing Co.; and Marc Shantz, Chicago manufacturers' representative. (3) J. P. McGuen, Autcmatic Heating & Cooling Co., Chicago; Mrs. McGuen; L. C. McKesson, Ansul Chemical Co.; Mrs. A. D. McGill; and A. D. McGill, Peoria, Ill. refrigeration and air conditioning engineer. (4) Mrs. Irene Walters of Schenectady, N. Y. dances with Everett Newcomer of New York City, as Mary Ward of Oak Park, Ill. and Dick Seddon of Mills Novelty Co. "sit this one out." In picture No. 2, Lem Branson, Jess Rauch, and Clarence F. (Sandy) Pratt of California Refrigerator Co., San Francisco, pose in front of the NEWS booth. They claim the distance record for any one company to and from the Show.



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